HOSPITAL

LONDON JOURNAL OF MEDICINE,

A MONTHLY

Record of the Medical Sciences.

AUGUST 1851.—No. XXXII.

ORIGINAL COMMUNICATIONS.

ON THE MUSCLES OF THE EYEBALL, AND THE NERVOUS INFLUENCES WHICH REGULATE THEIR ACTIONS.

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Most of the voluntary actions of our bodies are performed by us with reference only to the end which we have in view, while we generally remain unmindful of the mechanism by means of which they are produced; and with respect to the involuntary motions, which are the most important of all, provision is made for their continuance day after day, quite independently of our will, or even of our consciousness. Each muscular fibre employed in the former set of movements is under the influence of, and guided by, common sensation, or what may be termed the muscular sense. This may be appreciated by, and may act in concert with, the will. Thus we are quite conscious of the amount of effort made in endeavouring to raise a weight, although we do not move it. This sense it is which gives us the knowledge of the exact amount of force required in different muscles, in order that they may concur in producing any movement of the body. If this sense is impaired, or ceases to act in conjunction with the will, the muscles act irregularly, imperfectly, or not at all. When, for instance, the nerve of sensation has been paralysed in the head of a horse, the lower lip will hang, and the animal will be unable to eat its food, because it does not *feel* the amount of *effort* required in the several muscles to produce a combined action. Or, again, when a person loses sensation in his lower extremities, although the power of motion is unimpaired, yet will he be unable to walk, because he has no means of knowing or of indicating to each muscle the exact share which it should take in balancing his body. This sense may, however, be supplied by another under certain circumstances. Thus, well-known cases have occurred, in which the power of sensation was lost in the hand or arm, and in which anything placed in the hand would drop, the muscles receiving no intimation of the amount of action required of them. But, in such instances, if the eye were kept fixed on the object, it could be retained

perfectly well in the hand. Hence, the sense of sight supplies the deficiency of the muscular sense. This observation tends to illustrate the way in which the muscles of the eye are regulated in their actions. Unlike other muscles, they have not, or possess in a very imperfect degree, a muscular sense in conjunction with the will; and in this respect their physiological relations are in some degree analogous to those of the involuntary muscles of the body. When the eyes are closed, for instance, we should not know in which direction they looked, were it not that the eyelids occasionally feel the prominent cornea beneath them; or, again, we should in vain require a blind man to fix his eyes upon any given spot; and the evident cause that he cannot do so, is that the sense which governs the muscles of the eye is absent.

The peculiar use of the muscles of the eye in directing it and adapting it to vision, in fact, requires that their actions should be regulated, not by common sensation, but by the sense of sight; and it appears that under these circumstances we remain unconscious of the amount of effort required in any particular action. A local plan of governing the movements of the eye is adopted, which does not depend upon, or communicate with, the general sensorium.

If the finger be placed on the eyelid, so as to feel the convex cornea, we shall become aware of the sudden and rapid motions of the eyeball which are habitually taking place, although generally we have no intimation of them when the eye is closed. In every act of winking, the eye is thrown up to the roof of the orbit, which we should never have known from common sensation, had it not been discovered by other means. In these instances, again, it becomes apparent that the muscles of the eye are not regulated by common sensation; but as the eye is nevertheless guided with the greatest precision in every act of vision, we cannot but ascribe the power which controls their actions to the sense of sight: a point in physiology which has not hitherto been duly acknowledged.

It is probably owing to the absence of the muscular sense in this region, that the means employed for the adaptation of the eye to vision at different distances have so long been made the subject of dispute. Could we be conscious of the effort made in altering the focus of the eye, we should probably be at no loss to ascertain the means by which it is effected; but as the adjustment of the eye takes place under the government of its own nervous influence, and is produced by its own construction, we can only reason upon it, without being able to test our conclusions by our sensations.

The muscles attached to the eyeball are of two kinds, the recti and the obliqui. The *recti* muscles arise from the bottom of the orbit, and run in a straight course over the sides, the upper, and the under surface of the eye. The *obliqui*, in man, have a direction backward and outward as they pass to their insertion; but in many animals, whose eyes are situated laterally, they are nearer the front part of the eye at their insertion than elsewhere; so that although in all animals they have a transverse direction (one passing above, and the other below the globe), yet in some they pass from behind forwards, and in others from before backwards,[1] in reference to the eyeball.

[1] As the position of the eye varies in different animals, the terms anterior and posterior, internal and external, are used in reference to the eye, the cornea being considered the anterior part.

The *recti* perform the office of directing the axis of the eye, turning it to every point in the sphere of vision, and are, as we have seen, under the control of the sense of sight. It frequently happens that one retina is much more sensitive than the other; and under such circumstances, the more feeble impression may be habitually disregarded. The controlling power may then likewise be deficient, and the two eyes may not usually be directed to the same object. A person thus affected will in vain endeavour, by any effort of the will, to direct the wandering eye to any object, as long as the impression of that object remains distinct on the stronger eye, but does so immediately that the more vivid impression is lost. Some individuals become practically aware of the fact, and close the stronger eye in addressing a person situated on the opposite side.

It is necessary for distinct vision, that the impressions on the retina should remain a certain time. If this condition is not complied with, confused images are produced. It is therefore necessary, not only that the eye should be moved from object to object, but that it should be capable of being fixed upon any point upon which the mind is intent. This is equally true, whether the object seen be at rest or in motion, and whether the eye itself be stationary or not. The straight muscles obeying the visual sense are sufficient to direct the eye to any point in the sphere of vision, and to keep it fixed upon such point during the time that the retina is duly impressed; and when the object seen is in motion, the recti muscles are all that is required to make the eye follow it as long as it moves in straight lines. But should it revolve upon its axis, it is obvious that the straight muscles could produce no corresponding motion of the eye. Or, again, if the head is moved in any other but a straight line, the recti muscles have no power of keeping the eye fixed upon an object during the time. In motions of this kind, therefore, in which the relation of the eye to external objects is changed, or when the external object moves in a circle, an apparatus is required by means of which the eye may revolve upon its axis, and so remain fixed with regard to the object seen during the time required for the due impression of the retina. A provision is made for this object in the oblique muscles, which, from their position in different classes of animals, should rather have been denominated "transverse". These embrace the globe of the eye, rotating it on its axis. The action of these muscles cannot be better illustrated than in looking at a carriage wheel in motion. If the eye is allowed passively to rest on the wheel, a confused image is produced, and no part is distinctly seen. But as soon as the separate spokes are observed, the eye is thrown into a series of slight rotatory motions, during each one of which it follows the wheel a sufficient time to see it distinctly. After each such motion, the eye regains its former position, and is again ready to follow the wheel to the same extent as before. Or when we look at an object, and move the head from shoulder to shoulder, the eye is moved in the arc of a circle whose centre is the neck, and the image of the object would be in constant motion upon the retina, were there not a provision for rolling the eye as well as directing its axis. It was formerly supposed, indeed, that the motion of images upon the retina gave the idea of the motion of the objects which produced them. Thus, Keill, in his *Introduction to Natural Philosophy*, p. 79, says:

"Those objects will seem to be moved, whose images are moved upon the retina." More accurate observation, however, shows us, that unless the eye is fixed for a certain, although it may be a very short period, upon an object, there can be no distinct perception of it. The point of sensation, the axis of the eye, and the thing seen, must be maintained, not only in the same straight line, but in their respective relations with regard to position, for a certain time, before a distinct impression can be produced.

The object, as has been observed by Hunter, becomes the fixed point, the centre of motion commanding the direction of the axis of the eye, as the north demands the direction of the magnetic needle; and this relation is maintained during each act of vision, whatever be the motions of the head or of the object at the time. If the head is moved towards the right shoulder, the superior oblique muscle of the right side acts sufficiently to counteract the effect upon the eye until a distinct perception has taken place. The muscle is then relaxed, and again brought into action, so as to allow a succession of distinct visual impressions, as has been illustrated in the example of the carriage wheel. When such a motion, or series of motions, is produced in one eye by the superior oblique, exactly corresponding results take place in the other eye by the action of the inferior oblique. These two muscles consent in their actions as if they were one, and yet we find that they derive their nervous influence from separate sources. Now, as we find every part of the living body fitted by its structure to the exact functions which it has to perform, we cannot doubt that a meaning is contained in this peculiar adaptation, which obtains throughout the whole class of animals that have moveable eyes. What the true interpretation of this particular disposition may be, I will not at present undertake to determine. But I may remark, that as the oblique muscles (taken together) have a double supply of nervous influence, so have they a two-fold office.[1] In all eyes that I have had an opportunity of examining, the oblique muscles embrace the eye, and have evidently the power of compressing it. In the cod and jack and other fish, the oblique muscles have a somewhat different relation to the eye to that which obtains in the human subject. They arise from the anterior and inner part of the orbit, and passing backward and outward, nearly in the transverse diameter of the eye, are inserted with the superior and inferior rectus into the upper and under part of the globe. The recti muscles arise very far back in the orbit, and proceed forward as well as outward to their connexion with the eye. They therefore meet the oblique muscles above described nearly at right angles. In birds, the superior oblique muscle arises from the anterior and inner part of the orbit, passes backward and outward, and expands into a flat triangular muscle, being inserted into the most projecting part of the upper surface of the eyeball. The inferior oblique is smaller, but takes the same direction as the superior oblique, and is inserted in a similar manner into the lower part of the eye. In quad-

[1] Sir C. Bell has with much justice insisted on the consent which obtains between antagonistic muscles, and has shown by direct experiment, that if a muscle contracts its opponent will relax, and *vice versâ*. Two muscles, supplied by different nerves, may thus have a mutual influence upon each other, and concur in performing a double function.

rupeds, the oblique muscles have the same origin and disposition as in man, but, owing to the eyes being situated at the side instead of the front of the head, their mutual relations are somewhat altered. In nearly all animals, they proceed more directly across the globe of the eye than in man.

It may be stated generally, that in those animals in which the socket of the eye is large, as compared with the head, and the eye directed laterally, the superior oblique muscle arises from the margin of the orbit, and proceeds backward and outward, or, in many instances, directly outward to its insertion; whereas in those where the socket is comparatively small, it arises with the recti from the bottom of the orbit, and after passing forward, is reflected through a pulley to its insertion. Whatever diversity there may be in the attachment and disposition of this muscle, it has a distinct nerve appropriated to its sole use in all classes of animals. Had its action been exactly similar to that of the inferior oblique, a branch of the same nerve might have supplied both. The superadded nervous influence implies a superadded function. Now the only action that the oblique muscles can have in all animals, besides that of rolling the eye in its socket, is to compress the eyeball. For although in some animals, from their oblique direction, they might be supposed to influence the direction of the eye, this would not be the case in others. In the swan, for instance, the so-called oblique muscle runs directly across the eye in its transverse diameter. From the observation of the actions of this muscle in man, its use has been assigned, by no ordinary authority, to be that of raising and dragging the eye, in conjunction with the changes to which the other features are subjected "in bodily pain, in agony of mind, and in all this class of passions." But not to mention that there are whole classes of animals in whose features no such expressions ever are recognised, the disposition of this muscle in fishes and birds entirely forbids the idea of any such office being assigned to it.

Although we cannot therefore determine satisfactorily the exact relations of this muscle, yet we infer from what has been said, that it has a twofold action: first, that of rolling the eye; secondly, that of compressing it so as to alter its focal length. But as other explanations equally ingenious have been maintained with reference to the mode in which the eye adapts itself to vision at different distances, we would not here enter upon the discussion, as to whether this effect may not also be produced by other means, but simply observe that the oblique muscles, taken together, have a double function, and a double supply of nervous power. Dr. Hosack, in a paper published in the *Philosophical Transactions* in 1794 (part II, page 222), observed, that external pressure was capable of altering the focal length of the eye, so as to adapt it to vision at different distances. "With a speculum," he says, "I made pressure upon my eye while directing attention to an object twenty yards distant, and saw it distinctly; but endeavouring to look beyond it, everything appeared confused. I then increased the pressure considerably, in consequence of which I was enabled to see objects distinctly at a much nearer than the natural focal distance; for example, I held a book before my eye at the distance of two inches. In the natural state of the eye I could neither distinguish lines nor letters,

but on making pressure with the speculum, I was enabled to distinguish both with ease."

Dr. Porterfield[1] objects to this explanation, that in the jack the oblique muscles "are both situated on the under side of the eye, where they decussate each other in the form a cross", and he therefore argues that the disposition of these muscles is not such as to allow them to compress the globe of the eye. "Had they been so disposed as to embrace the globe in the form of a ring, their contraction might then have squeezed the eye into an oblong form." Having repeatedly dissected the eye of the jack, I am enabled to say positively that the oblique muscles have the very disposition which Dr. Porterfield is here contemplating. His assertion respecting their decussation below the eye, has evidently arisen from mistaking the inferior rectus for one of the oblique muscles.

In all birds, the eye is embraced in like manner, in its transverse diameter, by the two oblique muscles; and when the eye is directed towards the beak, it comes more fully within the grasp of these muscles than at any other time. It is obvious, that in the act of feeding, and using their beaks for other purposes, birds require distinct vision of objects situated very near the eye; and it is equally obvious that rays of light, proceeding from a point near the extremity of the beak, would diverge before they entered the pupil, and would consequently form an image, or come to a focus, at a greater distance behind the lens, than if they had been parallel before they entered the eye. The range of vision in birds, both with regard to near and distant objects, is probably greater than in any other class of animals, and in them, as in fish, the oblique muscles are always well developed. These considerations lead us towards the solution of the question which has been asked for some hundred years past, namely, why the superior oblique muscle has one nerve distributed exclusively to it; and why that nerve, having a separate origin, and giving off no twig or branch, is sent into the orbit where there are already so many nerves? There may be, and probably are, some finer means of adjustment of the eye to vision at different distances within the organ itself, but we cannot but associate the function of this nerve, which is found in all animals that have moveable eyes, with the means by which such adaptation is produced.

Another adjustment of the eyes, which takes place as rapidly as does that of its focal length, occurs in the adaptation of the axis of the eyes to meet upon any object to which attention is directed. Here, again, we have a special action to be provided for, and a special nerve distributed to one of the muscles concerned. It is worthy of remark, that in this case, as in that of the oblique muscles, one muscle only is supplied by the special nerve, although two muscles (the internal and external recti) are equally concerned in the action. As we have a twofold motion to be provided for, (namely, that of the two eyes together, while their axes remain in the same relation to each other, and also that whereby the relation of the axes is altered, as in looking from a distant to a near object), so we have a twofold supply of motive nervous power.

The external rectus is supplied by the sixth nerve, which is almost

[1] PORTERFIELD on the Eye, vol. i, p. 424, *et sequent.*

exclusively distributed to it; and the internal rectus is supplied by the third nerve, which also supplies the other muscles of the eye. We therefore regard the ordinary motions of the eyes, while they act in concert, as under the influence of the third nerve, and their different degrees of divergence and convergence we regard as controlled by the sixth nerve. In every act of vision, therefore, there are no less than three distinct motor nerves employed, each of which conveys its mandate with a rapidity and precision of which we have not the means of forming even an accurate conception.

The muscles connected with the eye are peculiar in having the nerves which supply them with motive energy entirely distinct in their origin and course from those which supply them with sensation; and are also peculiar, as we have seen, in having their actions controlled and regulated rather by the sense of sight, than by the sensation which usually presides over muscular action. This peculiarity of disposition displays to us in a wonderful manner the care that is taken to supply every muscle (and every fibre of a muscle) with nervous influence adapted to its peculiar office. In ordinary muscles, the motive power and sentient or regulating influence are communicated through one nerve; and it is not so easy to trace their mutual relations and dependencies, as when these functions reside in different nerves. And although the mode in which the nervous energy is developed is quite as wonderful in the former case, it is more readily appreciated by us in the latter.

We have seen that in every distinct act of vision, the eyes have not only to be directed to their object, but their focal length has to be precisely adjusted; and that the sensations of the retina are the means by which these actions are governed. The rapidity with which they take place is such, that no one probably, unless directing especial attention to the point, would appreciate the interval which elapses between two distinct impressions as the eye runs over the surface of any object, and receives in succession the reflection of its different parts; and yet, for each such impression the sensation of the precise adaptation required has to be received by the retina, transmitted through the optic nerves, and, reflected again through the nerves of motion distributed to the muscles of the eye. The rapidity of such communications is truly electrical. One of the most striking instances of the rapidity of such communication of sensation, and consequent action of the muscles, is afforded in those instances where gunpowder accidentally explodes in a person's face. The eye takes cognizance of the flash, the information is transmitted to the brain, thence along the facial nerve through a circuitous route in the petrous portion of the temporal bone, to the outside of the face; and the circuit is completed, and the eyelids closed, before a single particle of the powder reaches the surface of the eye.

13, Dover Street, Piccadilly, July 1851.

ON CATAMENIAL DIARRHŒA.

By E. J. TILT, M.D., Senior Physician to the Farringdon General Dispensary and Lying-in Charity, and to the Paddington Free Dispensary for the Diseases of Women and Children.

Our information respecting diarrhœa as connected with the functions of the female generative organs may be expressed in the three following Propositions.

1. The induction of diarrhœa by purgatives often brings on menstruation when it has been temporarily arrested, or when it has been continuously checked, as in chlorosis; and likewise, the induction of diarrhœa by purgatives, whether given intentionally or not, has often determined abortion, or hastened delivery.

2. It is known that severe uterine diseases are often accompanied by constipation, and even more frequently by diarrhœa.

3. We know that in some cases, the cessation of the menstrual function at the change of life, is followed by diarrhœa; and that, guided by this fact, as well as by the experience of former times, one of the illustrious founders of the London Medical Society, Fothergill, justly recommended the use of purgatives to prevent the occurrence, or at least, to diminish the danger of the vexatious diseases to which women are liable at that time of life.

Not finding any mention of catamenial diarrhœa in the writings of Friend, our countryman (the best old writer on menstruation), nor in those of Brierre de Boismont (the best modern author), I concluded that I might be the first to draw the attention of the profession to the frequency of its occurrence; but I now find that some time since Dr. Butler Lane[1] had taken considerable pains to ascertain by a statistical inquiry, the state of the intestinal secretions during the menstrual period, and had arrived at conclusions partly at variance with, and partly confirmatory of my own. The result of his inquiry seems to have passed unnoticed; for in the discussion, which arose out of the paper I had the honour to read before the London Medical Society, it was stated by Dr. Murphy and Dr. H. Bennet, that they were not aware of menstruation being so frequently accompanied by diarrhœa as it was proved by Dr. Lane's researches and my own, while some of the fellows could not admit the truth of such assertions, because they either deemed them unphysiological, or because, according to them, if true, they would have been noticed before. This, therefore, is the state of our information relative to diarrhœa in connection with menstruation: I shall attempt, from this starting point, to attain a more definite knowledge of the subject.

Facts. Having been long engaged in a statistical inquiry into the phenomena of menstruation, I had collected several hundred histories of the menstrual function, when I learnt from a lady, that her bowels were always deranged two or three days before each monthly epoch.

[1] Lane, Butler, M.D. On Functional Diseases of the Liver associated with Uterine Derangement. London: 1848.

On questioning others in regard to this symptom, I was surprised at finding the first ten make the same statement; however, on continuing my investigation, it appeared that in a great many other women, diarrhœa was not a precursory symptom of menstruation. To prevent any erroneous impression relative to the value of the phenomenon, I shall premise that I have principally derived my information from patients who apply to the public institutions with which I am connected; and that the information obtained does not represent the state of the menstrual function when the patients are attacked by disease, but as it generally occurs at each period of menstruation during health. I have therefore carefully omitted all patients suffering from uterine disease as well as the chlorotic, for reasons which will soon be obvious.

The first object of inquiry is, whether healthy menstruation is accompanied by any intestinal derangement? Doubtless this is often the case, for on adding 100 cases given by Dr Butler Lane, to 349 collected by myself, making a total of 449, the intestinal functions were deranged in 239, and not deranged in 104 cases. This frequency of intestinal derangement is confirmed likewise by some statistical inquiries made by Dr. Ogier Ward.

Admitting that intestinal derangement frequently coincides with menstruation, it remains for us to ascertain the nature of this disturbance. Judging from his 100 cases, Dr. Butler Lane was led to believe that the normal exercise of menstruation generally induced constipation; but this is not confirmed by more numerous inquiries, and as I infer, that the information was not all collected by Dr. B. Lane, it may be admitted, that if some of the women reported to be habitually costive during menstruation, had been asked whether they were likewise so a day or two before that period, they would have answered, as has frequently occurred in my practice, "No, the bowels were more open just before, and by that I knew that the courses were coming."

A general view of a phenomenon can alone give its true value. I shall therefore inquire into the frequency of that catamenial diarrhœa, whether it occur—

I. At the prodroma of menstruation.

II. During its regular establishment, or

III. At its cessation.

I. As a symptom of the prodroma of menstruation, diarrhœa scarcely ever occurs. I have noted it but three times in 349 cases.

II. As a symptom of regularly established menstruation, it occurred in 168 instances out of 349 women carefully interrogated relative to this point. It did not occur in 155 cases.

In those cases in which it did occur, it preceded the menstrual flow in 67 cases, and accompanied it in 75. It both preceded and accompanied it in 21 women, and in three cases it neither preceded nor accompanied it, but on the contrary, for two days habitually followed the menstrual flow. In the cases of precursory diarrhœa, the action of the bowels was generally suspended during menstruation until the cessation of the catamenial period.

The following table will permit the reader to understand the nature of the catamenial disturbance of the intestinal surface.

STATE OF THE BOWELS DURING HEALTHY MENSTRUATION.

Dr. Butler Lane's List.	No. of obsv.	Author's 1st List.	No. of observations.	Author's 2nd List.	No. of observations.
		RELAXED.		RELAXED.	
		Before the time ..	45	Before the time ..	22
Bowels		At the time	31	At the time	44
relaxed	33	Before and after ..	10	Before and after ..	11
		After	2	After	1
			88		78
				CONFINED.	
Bowels				Before the time ..	4
confined ..	45	Bowels confined ..	73	At the time	23
				After	1
					28
State of				UNALTERED.	
bowels				Regular as usual ..	77
unaltered ..	22			Confined as usual	2
				Relaxed as usual ..	3
					82
	100		161		188

On adding the totals of my two lists to that of Dr. Butler Lane, 449 observations are obtained, out of which it would at first appear that some kind of intestinal disturbance during menstruation was only absent in 104 instances; but I consider this proportion to be smaller than what is really the case, from the fact of my not having been sufficiently minute in my inquiries of the 73 women referred to in my first list, as having their bowels confined. If I had asked them whether the bowels were in their usual state, or more confined than usual, I should probably have elicited results similar to those set forth in the second list. It would appear then, that some kind of intestinal derangement may be expected during menstruation in about 75 per cent. of cases. Diarrhœa occurred at some time or other in 199 instances out of the 449 cases, so that this symptom may be expected in about 50 per cent. The frequency of constipation, for reasons already given, cannot be inferred from my first list, nor from Dr. Butler Lane's, which is even less explicit, and further inquiry is necessary before I can venture to assert that my second list is a faithful representation of physiological facts.

III. As a symptom of menstruation at the period of cessation, it occurred in twelve per cent., irregularly in eight, and regularly in four per cent., being vicarious to menstruation every month, in the same manner as is more frequently the case with leucorrhœa.

With respect to the nature of the diarrhœa, it is generally unattended by pain or any other circumstance, and merely consists in a greater relaxation of the bowels, which are moved two or three times a day instead of once. Sometimes however, for two or three days it is preceded by nausea, slight colics, and wind. This last symptom was noticed by Friend, as occurring just before menstruation, and by him erroneously referred to plethora. I have known these symptoms to last habitually eight days before the appearance of the diarrhœa.

With respect to the nature of the evacuations, they are, generally speaking, healthy; sometimes of the usual consistence, or rendered

more liquid by an increased quantity of mucus, while after cessation they are more frequently of a serous or watery nature, like soap-suds.

Pinel mentions (Med. Clin.) the case of a woman who had ceased menstruating for a year, but who suffered every month from violent abdominal pains followed by diarrhœa.

Thus as a prodromic symptom, diarrhœa scarcely ever occurs; it is found in 12 per cent. of cessation cases; and it is a very frequent precursory or attendant symptom of fully established menstruation. Such are the facts from which I now propose to deduce a physiological meaning.

Physiological Inference. Generation, so simple in animals of a simple structure, becomes more complicated as we ascend the scale of created beings; and in the most perfect of all animal forms it attains to so high a pitch of dignity, that for the mere elaboration of a germ, which is only just capable of perhaps becoming a man by conception, the ovaries often call into consentaneous action most of the organs, which, being subsidiary to nutrition, are animated by the ganglionic nervous system. Menstruation then, far from being a passive discharge, to be accounted for by mechanical causes, must be more than ever considered as a critical termination, often preceded by mucous discharges from the generative and intestinal canals, as well as by the complicated nervous phenomena which most frequently precede both the uterine and intestinal discharges. A neural current impels the blood outwardly from the womb; but before this current effectually succeeds in doing so, the same, or at least a parallel nervous current has determined a similar outward flow of mucous secretions from the intestines, in more than 50 per cent. of the women I have questioned; and as no doubt occurs to every one in practice, we often imitate nature with great advantage, and hasten the uterine by accelerating the intestinal discharge.

When once a fact is established on respectable testimony, it is useful to seek to account for it by our knowledge of the laws by which it may be governed. Formerly, it would have been deemed a sufficient explanation to say, that it was the result of sympathy, or that it was caused by the transmission of irritation from the generative to the intestinal apparatus; but the light which Dr. Marshall Hall has thrown on the physiology of the nervous system, permits us to account for the phenomena by reflex action; for if the abdominal and not the respiratory organs are frequently implicated by uterine disturbance, it may depend, as Dr. Snow Beck has justly stated, on the fact that the nerves which surround the womb and the intestinal organs, arise from the same part of the spinal cord, while those going to the respiratory and circulating system, arising from a much higher portion of the spinal marrow, are not implicated in uterine disturbance. Dr. B. Lane in his interesting pamphlet, has sought to explain the intestinal disturbance during menstruation, by admitting a certain balance to exist between the biliary and the uterine secretions, and he says—

"I am therefore inclined to believe that constipation, to a greater or less extent, most commonly coincides with menstruation when the uterus is in a healthy condition, its function exerting a derivative influence in reference to the liver. On the other hand, if congestion of the liver be consentaneous with the period of uterine congestion, spon-

taneous biliary secretion, simultaneous with the menstrual flow, may afford relief; but if there be a still higher degree of hepatic congestion, it may occasion mucous diarrhœa, as it is known to do on other occasions, and that more especially if the irritative influence of dysmenorrhœa be present. Such I believe to be causes of the occurrence of diarrhœa during menstruation, and as a general rule, I consider it indicative of a morbid tendency."

In confirmation of his views, Dr. Lane adduces the fact of menstruation being sometimes preceded by a decided bilious state and that of bilious diarrhœa, sometimes preventing the appearance of menstruation or checking the flow; and lastly he argues, from the utility of mercury in setting right the menstrual function, when it is given to modify the state of the liver.

With deference to so excellent an observer, I cannot help thinking that Dr. Butler Lane has been too forcibly struck with the exceptional cases he has so faithfully represented, and has been led to consider them as more frequent than they are really; for, in taking into consideration the condition of the tongue, the quality of the stools, and the general appearance of the patients, I have seldom, except at the change of life, found any marked disturbance of the biliary apparatus, either in those who were confined or relaxed at or before menstruation. Being thus on one point at variance with Dr. B. Lane, it is just to say, that some of his views have lately received confirmation from a very distinguished observer, Professor Simpson,[1] who says—

"In very many women, the biliary secretion becomes disordered at the return of each menstruation; in some a state of constipation, in others a state of diarrhœa, recurring during each menstrual period. The biliary and menstrual secretions seem almost vicarious of each other; and as in other cases where such physiological relations exist, the two functions are not unfrequently simultaneously deranged in their pathological actions also, both being occasionally increased or decreased together; or, what oftener happens, one being increased in extent and activity, when the other is diminished. In some cases, the cure of an uterine disease seems also to rectify the coexistent, and perhaps resultant, hepatic derangement; while no doubt also, in other cases, we find ourselves unable to amend and correct uterine diseases and discharges, till we have, in the first instance, used appropriate means to modify and correct the attendant hepatic disorder."

Whether irritation, sympathy, reflex action, or a too great activity of the biliary apparatus, be the cause of this intestinal disturbance during menstruation, it must be considered part and portion of the phenomenon of menstruation; and this is all I wish at present to maintain.

I have already pointed out the similitude that exists between the diarrhœa which precedes the elaboration of the germ by the ovary, and that which precedes the parturition of the perfect fœtus by the uterus; and I have shewn that, in both these natural processes, nervous currents direct at the same time the fluids to the outlets of those duplications of the same skin, the generative and the intestinal tubes, which

[1] Simpson, Dr. J. Y. Edinburgh Month. Journ. for February 1851, p. 165.

are placed in such close juxta-position, and so much influence each other, because they are governed by the same nervous force, are relieved by the same system of vessels, and are intended to fulfil the same end. For, while the intestinal surface is made for the preservation of the individual, the generative surface is destined for the preservation of the race, which is but another mode of self-preservation, enabling us to exist in the future, and to extend ourselves into time and space.

Facts, founded on 449 observations, made by two different observers, led me to inquire into the physiological bearing of catamenial diarrhœa, in the hope of being thus conducted to the better understanding of some pathological data.

I. Whenever there is a great increase of uterine activity, a tendency to diarrhœa may be expected. Dr. Lane states, that in about half his cases wherein diarrhœa occurred during menstruation, dysmenorrhœa also existed. Dr. Rigby makes a somewhat similar statement respecting the majority of the cases of dysmenorrhœa he has met with; and I have several times seen diarrhœa occur in cases of menorrhagia, both flows progressing and abating together.

Dr. Henry Bennet has stated that, judging from several remarkable cases, he had concluded that prodromic diarrhœa coexisted with inflammation of the neck of the womb, leading him to expect the one when the other was present. I cannot, however, consider diarrhœa a constant attendant on uterine inflammation; for, as Professor Simpson truly observes, "often in uterine disease there is constipation, and sometimes a want of power to expel the fæculent matter, as if there was a kind of paralysis of the rectum; which not unfrequently occurs in cases of retroversion of the unimpregnated womb." In twenty cases of uterine tumours, Dr. B. Lane found that the bowels were unaffected in four instances; constipated in two; relaxed in fourteen instances.

II. If it be true, to a certain extent, that diarrhœa might be expected in diseases of the uterine organ marked by increased activity, it is still more so that constipation may be looked upon as the rule, in those diseases of the ovario-uterine organs characterised by their deficient action; for, as the presence of the menstrual nisus is as much felt by the intestines in their particular way as by the womb, so, when in suppression the womb is deprived of its critical discharge, the intestines are likewise deprived of theirs; and constipation, as Friend has already correctly stated, is the frequent companion of suppressed menstruation.

The obstinacy of constipation in chlorosis led many a practitioner to confide principally in purgatives, long before Dr. Hamilton, of Edinburgh, made it his sole means of treatment. Those cases are indeed exceptional, wherein serous discharges last long in anæmic women, in whom menstruation has long been suppressed. This circumstance, as well as the state of the skin, lead one to suspect this serous diarrhœa to be caused by enteritis, often depending on a tuberculous diathesis.

But of what use are facts, and our deductions from them, physiological as well as pathological, unless they lead to therapeutics? If I mistake not, the knowledge of the very intimate organic relation

existing between the generative and intestinal mucous surfaces, gives us the key of much empirical practice, and will therefore enable us to act in future with that full confidence only to be obtained from knowledge. It explains to us why daily it is sought to insure the deficient action of the womb, in suppressed menstruation, in chlorosis, in labour, by the administration of purgatives; and why, on the other hand, we daily seek to diminish the too great activity of uterine action by the injection of opiates into the rectum in dysmenorrhœa, in irritable uterus, in diseases of this organ, as well as in those little understood conditions of the womb which so often lead to abortion.

London, July 1851.

OBSERVATIONS ON SOME POINTS IN THE PATHOLOGY AND TREATMENT OF THE DYSENTERY OF INDIA.

By JOHN TAIT, Esq., Assistant-Surgeon Madras Retired List, H.E.I.C.S.

Within the last few years, the profession have been favoured with some important contributions to the pathology and treatment of tropical dysentery. The researches of Professor Parkes have disclosed the fact, that ulceration affects the solitary glands of the large intestine, and that it exists during the early stages of the complaint. The standard works of Annesley, Twining, Johnson, and Martin, make no allusion to these features of the complaint, and the discovery adverted to has consequently disproved the idea formerly entertained, that ulceration was met with only as a sequence of a protracted inflammatory attack of the mucous membrane.

The acute dysentery of India is found associated with three grades of ulceration of the mucous membrane of the colon. In the first, which may be styled simple ulceration, in contradistinction to the others, the ulcers, in the earliest stage of their development, are seen as minute points affecting the solitary glands, and from this, to the size of half-a-crown, they present every intermediate variety in point of extent. They are of circular shape, having a ground of coagulable lymph superimposed upon cellular membrane, which frequently presents a variegated appearance from the presence of minute red points of the subjacent muscular fibres. The circumference is guarded all around by an effusion of lymph under the mucous membrane, which directly limits the spread of the disease. The mucous tissue for the space of an inch, or an inch and a half, in the vicinity of the ulcers, is in an inflamed state.

With reference to the ulceration originating in the glands, I may state, that shortly after Dr. Parkes promulgated his views upon the pathology of this disease, I had an opportunity of verifying the truth of his observations, by examining the intestines of a patient who died from an attack of cholera, after being three days in hospital for acute dysentery. By the aid of the microscope, I discovered the small tumefied glands with an ulcerated depression in the centre; and, with the eye unaided by optical instruments, I was enabled to trace the ulcerated specks, in different stages of advancement, to the size of

a split pea. The appearances now described have been carefully looked for by me in the colon of different subjects, but, except in those who had suffered from dysentery, I have not been able to trace them. The phenomena observed during the exhibition of mercury for the cure of the disease, would seem to argue much in favour of the ulceration being primarily located in the solitary glands. Those who have had frequent opportunities of witnessing the therapeutical effect of the medicine in this complaint, cannot have failed to remark that a perfect resolution of the disease is not effected, until the salivary glands are fully engaged by the mercury. Every one is familiar with the metastasis that takes place between the parotid gland and testes; and it would appear that the salutary operation of mercury in acute dysentery arises from the irritant action set up in the salivary glands, translating, as it were, the disease from the solitary glands to those secreting the saliva. Again, I have examined the bodies of many men who died from dysentery complicated with hepatic abscess. I do not remember a single instance in which I did not find the ulcers of the colon either healed or contracting; and I have repeatedly remarked the great relief that immediately followed, with respect to the dysenteric symptoms, on the supervention of hepatic complication, or, in other words, a rehearsal of the phenomena occasionally observed to take place between the parotid and testes.

The absence of such an affection of the glands in other cases than dysentery, coupled with what has been detailed above, are to my mind conclusive proofs that the ulcers have their origin in the solitary glands. The discovery of the fact of ulceration being present in the early stage of dysentery, has been productive of important consequences in the treatment of the disease. The morbid condition of the membrane alluded to, was supposed to be present only when the disease did not yield, or when the evacuations became watery, and the utility of mercury at this stage was much and justly questioned; but from what will be hereafter detailed, it will be observed that this remedy is one of the most valuable agents in producing cicatrisation of simple ulcers, and that it is only in asthenic forms of the complaint that it is inadmissible. The persistence of the symptoms, with loose evacuations, are indicative of the simple ulceration having passed into a more advanced stage, in which nature opposes no barrier of protective lymph to limit the ulcerative absorption, which consequently extends itself, and destroys the patient. This form of the complaint I shall consider under the head of "spreading ulceration."

The symptoms which constitute an attack of dysentery, and with which the simple ulceration is identified, are usually the following: After a premonitory diarrhœa of one or two days duration, the patient experiences a constant desire to go to stool, preceded and accompanied by severe tormina about the umbilicus. Every effort to evacuate the bowels is attended with urgent tenesmus, and nothing is passed but mucus, mixed with blood; the latter being either incorporated with it, or faint traces being interspersed throughout the secretion. In first attacks of the disease, or in subjects who have recently arrived in India, the symptomatic fever usually runs high, and, along with a small firm pulse, there is the dry strictured skin described by the late Dr. Johnson. Some tenderness may generally be felt over

the cæcum, but there is seldom much exalted sensibility to pressure over the other parts of the abdomen. Where the general fever, tormina, and abdominal tenderness are severe, they afford good guides for the employment of active treatment; but cases are frequently met with where these symptoms either singly, or collectively, afford us little information respecting the treatment to be adopted. We therefore require the presence of a symptom, which will assure the tolerance of active and decided remedies. This symptom, I think, is to be looked for in the evacuations. In the form of disease now under consideration, the mucus, however much it may vary in colour, is either viscid and adherent to the vessel into which it is discharged, or it is voided in masses firmly coherent. Where either of these appearances of the evacuations is observed, full bleeding should be at once employed for reducing the inflamed condition of the mucous membrane before mentioned, for lowering the system, and for paving the way for the salutary reception of mercury, on the action of which the healing of the healthy ulcers depends. As soon as the salivary glands are affected, the lymph which bordered the ulcers is speedily absorbed, and contraction of the various solutions of continuity takes place, leaving a visible puckering where union has been effected. Opium in large doses materially expedites this much desired termination of the disease, by restraining the peristaltic action of the bowels, and by mitigating the harassing irritability which accompanies an attack of dysentery, and which proves so adverse to the reparation of structure. When a case of the kind is seen early and is properly treated, its tendency is to terminate in resolution; and if mercury in large doses is to be approved of in this complaint, the variety under review is one above all others where it is most successful, especially should there be nothing but pure mucus in the evacuations, and if the latter are accompanied with urgent tenesmus. Mercury cannot be depended upon for the cure of dysentery, unless the tension of the blood-vessels is well moderated by appropriate depletion; as, where this practice is unattended to, it is apt to engender an unhealthy action. It should be given with full doses of opium, as their combination lessens the chance of the mineral over-exciting the system, and causing further disintegration of the affected tissues.

Between the first and second varieties of ulceration, there is what may be called the transition stage, or the transformation of the healthy into the unhealthy ulcer. A simple sore, when situated on the extremities of the body, is sometimes suddenly changed into an irritable one. The granulations first become dry and shrink, they then take on a stunted appearance, and finally disappear, leaving a ground, which, either from defective, or perverted action, does not possess sufficient vitality in itself to excite contraction of the sore. The like phenomena are observed to take place when the ulcers are situated in the mucous membrane,—with this difference, that while in those affecting the extremities, the disappearance of the granulations takes place from the border towards the centre, in the mucous tissue of the bowels this is reversed:—and it is not until the ulceration undermines the border of the intestinal ulcer, that the ring of protective lymph breaks down, and permits further extension of the disease, which then constitutes the spreading ulceration. The only symptom which can be

relied upon for giving us information of the transition stages being developed, is the discharge from the bowels, which resembles the washings of raw meat. If, during the exhibition of mercury for the cure of simple ulceration, the gums, instead of swelling, become ulcerated and excessively painful—the presumption is strong in favour of this morbid condition of the ulcers being established.

Such cases almost always prove fatal, either by extension of the disease, or by leading to the formation of hepatic abscess. The treatment which I consider most applicable is, ipecacuanha and opium in full doses, with local bleedings, and counter-irritation. Where the morbid action in this form of the complaint fails to dissipate the lymph on the edges of the ulcers, fresh layers of fibrine are deposited, and sometimes in such quantity, that the sore is prevented from contracting, simply from a redundancy of lymph; in fact, in such a case, we have presented to us, on the mucous membrane, the perfect type of the indolent ulcer on the surface of the body. This pathological state of the mucous membrane is the cause of chronic dysentery. The transition stage is therefore fraught with danger, as it is not much under the influence of any treatment; and its terminations are to be dreaded.

There is, perhaps, no disease (cholera excepted) which perplexes a young medical officer on his arrival in India, more than dysentery. When he first enters the service, he is sent to do duty in the General Hospital, where the generality of patients who are admitted suffering from this complaint, are merchant-seamen, etc., who are temporarily stationed in India. Such subjects, when seen early, usually present the symptoms of simple acute dysentery, and the disease commonly gives way to judicious bleeding, with calomel and opium, etc. In a short time, the Assistant-surgeon is ordered to join a European Regiment, where the men have been some years in the country. Cases of dysentery occur, but the men disregard its earliest symptoms; they have recourse to ardent spirits to allay their uneasy feelings, and it is not unusual to find soldiers presenting themselves at Hospital, ten days (and I have known it a fortnight) after the first symptoms of the disease have set in. On admission, they are found affected with an advanced stage of the disease, in which the time for active depletion and the internal employment of mercury has gone by, and the mucous membrane is in a state of spreading ulceration. From the circumstance of soldiers continuing to do their duty for some time after the first invasion of the disease, it would appear that the inflammatory stage of dysentery, uncomplicated with ulceration, is limited to the first few days of the disease, probably to the initiatory diarrhœa. I cannot imagine that acute inflammation could be present for days together without giving rise to corresponding symptoms; but, as soon as ulceration is established, pain is diminished, because the tension, caused by the infiltrated condition of the affected membrane, is relieved by the outlet which the ulceration affords to pent-up fluid.

I now come to the second division, or spreading ulceration. The ulcers are watery-looking and ill-conditioned; their form is irregular, and the edges are undermined from ulcerative absorption, extending some distance beneath the margin. There is no conservative lymph thrown out round the base; they are usually of much larger size than those

first mentioned, and they very often become confluent; so that, in fatal cases, it is common to find the integrity of the mucous coat of the colon completely destroyed by a continued mass of ulceration. The tormina, tenesmus, and general symptoms, give us no particular indications of the disease having advanced to this stage; but the stools no longer present the tenacity of those accompanying simple ulceration; they are loose, glairy, and gelatinous, and, in extreme cases, they become quite watery and offensive. The blood discharged is no longer intimately blended with the evacuations; it is either in loose streaks, or coagula. The treatment which has been found most efficacious in these cases, has been nitric acid and opium. Ipecacuanha and opium in full doses; and, in the adynamic forms of the complaint, three grains of the nitrate of silver every four hours, with opium, have been employed with much success by Dr. Gamble, of H.M. 4th regiment of foot.

The third and last variety is the most fatal form of the complaint; the local disease sets in with great intensity, and runs its course with fearful rapidity, to the sloughing stage. From the first, there is great depression of the system; and, in lieu of the tormina and abdominal tenderness complained of in other cases, there is often nothing more to be discovered than a sense of morbid heat along the course of the colon; pain is usually absent. In two cases of this description, which occurred in my practice in 1843, and which were published in the *Madras Medical Journal*, there was little or no attendant pain or distress. The stools are grumous and offensive, with shreds and *débris* of the affected mucous membrane. A large portion of the inner lining of the gut, or the tubular incrustation of pseudo-membrane formed by coagulable lymph, is not unfrequently discharged. When the secretions from the bowels assume a chocolate-colour, of the consistence of treacle, and are copious and offensive, it is a most fatal symptom of the disease. Very few recoveries take place from this form of the complaint. On dissection, there is found excessive softening of the gut, which breaks down under the hand, and perforation is generally found to have taken place from sloughing of the whole coats of the intestine. I know of no treatment which is of use in this stage. Everything which I have tried has invariably failed; but there is one remedy which has suggested itself to me, and which I think is deserving of trial, viz., *yeast*.

I have already alluded to the beneficial effect on the dysenteric symptoms, which attends the translation of morbid action from the solitary glands to the liver, and where this translation ends in the formation of hepatic abscess. I have been led to remark the extraordinary healing power which the fermented stools, (characteristic of abscess in the liver), possess over the ulcers of the colon. This is not to be wondered at, when we consider the efficacy of carbonic acid in irritability of the stomach and intestinal canal, and its soothing properties in ulcers generally. I therefore regret that I never gave *yeast* a trial, either by the mouth or by injection.

The various forms of ulceration have one common origin in the solitary glands. The first variety passes into the others by the advancing severity of the disease. The simple and the spreading ulceration affect the cæcum, ascending, transverse, and sigmoid flexures of the

colon. The sloughing form I have found most frequent in the ascending colon and sigmoid flexure.

Complete recovery from simple ulcerative dysentery is very common, in so far as regards the mere union of the abraded surface. In the *post-mortem* examinations of men who have been some time in India, and have suffered from dysentery, extensive cicatrices are always remarked in the colon. They seem, during life, to give rise to irritability of the bowels and general emaciation, from the functions of the glands of the mucous lining not being carried on in these cicatrized spots. They are usually dry, and destitute of the halitus which bedews the intestinal mucous surface. I would here remark, that to bring about the union of the ulcers, the case, if seen early in the simple acute stage, should be very actively treated by full bleeding, followed by a scruple of calomel and two grains of opium; a hot hip-bath, and an enema, containing a scruple of acetate of lead, and a drachm of laudanum; much relief usually follows such treatment. In spreading and sloughing ulceration, mercury is contra-indicated, as it is in all cases where there is either a deficiency of fibrine, or where the system fails to elaborate it. In the stage of convalescence, the flow of healthy bile should be solicited by nitric acid, as this secretion is a grateful stimulating corrective to healing ulcers.

These observations are thrown together for the purpose of drawing attention to the *evacuations*, as indicative of the different stages of dysentery, and as the best guides for the treatment to be adopted. I have scarcely hinted at the colour of the secretions, as it is of secondary importance to their physical properties. It will be observed, that many and valuable subsidiary remedies have been passed over, as the aim of the writer is merely to give a few hints, in the hope that some one more able than himself may be induced to take up the subject, and give it that attention which it seems to merit.

Dunse, N.B., June 1851.

BIBLIOGRAPHICAL RECORD

Pharmacopœia Collegii Regalis Medicorum Londinensis. Londini: 1851.

The new Pharmacopœia of the Royal College of Physicians claims a more extended notice than we can at present bestow upon it; but in reviewing the translations and commentaries now published or announced for publication, we may be able to return to the work to which they owe their origin.

Some will perhaps think that too many articles have been rejected which found a place in the old pharmacopœia, while others will perhaps think, that the system of eradicating useless incumbrances from the *materia medica* has not yet been carried far enough. But it must, we think, be admitted, that the compilers of the present pharmacopœia have exercised, upon the whole, a judicious discretion in its composition; they have struck out a number of matters which can very well be spared, while they have introduced many valuable additions to our stock of remedies, with which the progress of science has happily made us acquainted. Thus, to take a few instances at random: acetosella, acorus, asarum, aspidium, cardamine, centaurium, contrajerva, malva, marrubium, olibanum, opoponax, origanum, pyrethrum, rumex, testæ (oyster shells), toxicodendrum, tussilago, have, we think, very properly been excluded; while many valuable medicines, such as gallic and tannic acids, atropia, morrhuæ oleum, have been introduced for the first time. Formulæ are given for the preparation of chloroform, of sulphate of atropia, of liquor ammoniæ citratis, liquor morphiæ acetatis, liquor morphiæ hydrochloratis, liquor arsenici chloridi, syrupus ferri iodidi, and several others.

New names of botanical genera and species have in some instances been adopted. Elaterium is said to come from ecbalium officinarum instead of momordica elaterium; jalap from exogonium purga instead of ipomæa jalapa; kino from pterocarpus marsupium instead of pterocarpus erinaceus, buchu from barosma serratifolia instead of diosma crenata; the yellow bark is referred to cinchona calisaya, the pale to C. condaminea, the red to an uncertain species; and gamboge, which was formerly improperly referred to stalagmitis cambogioïdes, is now said to be derived from an uncertain species of garcinia. Senna is still referred to the genus cassia, the Alexandrian to C. officinalis and C. obovata, and the Indian to C. officinalis. The question of the true species yielding rhubarb is disposed of by abandoning rheum palmatum, and referring the drug to an uncertain species. In these alterations, we approve the judgment exercised by the College; and where differences of opinion exist as to the exact plant which yields a drug in common use, we think that the question will be better settled by travellers and by botanists, than by an authoritative dictum expressed in the pharmacopœia.

In the nomenclature of chemical compounds, few alterations have been made; but the sesquisulphuret of antimony is now called, and we think properly, the tersulphuret, and the trisnitrate of bismuth is now called the nitrate. We are glad to perceive that no alteration has been made in the pharmacopœial names of calomel and corrosive sublimate; for, although we are inclined to think, from theoretical considerations, that the first should be regarded as a subchloride, and the second as a chloride, yet we are too sensible of the danger of such a charge in the nomenclature to desire its adoption; and we are glad to notice that, in order to prevent all misunderstanding upon the point, the names *calomelas* and *mercurius corrosivus sublimatus* are underlined respectively to chloride and bichloride of mercury. Only one iodide of mercury is retained, which, from its constitution, is the protiodide; and the bicyanide of mercury, which is not used either in medicine or pharmacy, together with that useless and anomalous compound, the hydrargyri sulphuretum cum sulphure, are omitted altogether.

The alphabetical list of medicinal substances, with a short description of their chemical characters, which stood in the last pharmacopœia, is omitted in the present; and the chemical notes, which are very judiciously and carefully drawn up, are attached to the different articles as they are mentioned in their places in the body of the work. The chemical description of arsenic, which was very defective in the last edition, is full and correct in the present.

The College has purposely omitted the processes for preparing many substances which are manufactured on a large scale; for, to use the words in the Preface, "haud iniquum fore arbitrati sumus, ut si quæ sint apud mercatores chemicos accuratissime et limatissime præparata, ea quidem enumeremus potiùs et describamus, quàm quâ quæque ratione et quibus modis præparanda sint, exponamus: utpote quæ nostris usibus eousque inserviunt, ut eadem a nobismetipsis præparari minime necesse sit." And a little farther on we are told: "Verum enimvero cùm ad hæc et alia quævis rite preparanda summa cura et diligentia pro viribus nostris impensa est, non tamen abnuimus, quin possit fieri, ut aliis fortasse modis minori sumptu vel magis commode aliis in re chemicâ peritis eadem præparare liceat." This modest admission, however, is in very little accordance with the official English announcement with which the book commences, and in which we are told, that "Her Majesty doth strictly require, charge, and command all and singular apothecaries and others, whose business it is to compound medicines, or distil oils or waters, or make other extracts within any part of Her Majesty's kingdom, that they and every of them, immediately after the said Pharmacopœia shall be printed and published, do not compound or make any medicine or medicinal receipt or prescription, or distil any oil or waters, or make other extracts that are or shall be in the said Pharmacopœia mentioned or named, in any other manner or form than is or shall be directed, prescribed, and set down by the said book, etc. . . . And Her Majesty doth hereby declare that the offenders to the contrary, shall not only incur Her Majesty's just displeasure, but be proceeded against for such their contempt and offences, according to the utmost severity of law."

Notwithstanding the inclination manifested by the College to omit the details of the preparation of many of the pharmaceutical compounds, they have still retained formulæ for the preparation of calomel, corrosive sublimate, tartar emetic, and hydrocyanic acid, the mode of preparing which might just as well be left to the discretion of the manufacturer. We cannot help lamenting that, although the College threatens the royal vengeance against "all and singular apothecaries and others," if they venture to deviate from the directions given in that Pharmacopœia, no control whatever is exercised by the legislature over those who take upon themselves the manufacture and sale of medicines. This important branch of therapeutics is, in fact, left to the individual respectability of the wholesale druggist, who, if he act honestly has no reward except that of his own conscience, and, if he act otherwise, has no tribunal to punish his errors or expose his ignorance. But we grieve to add, that the directions of the College cannot always be complied with; and that some of them are so vague as to be useless. The Latin language is ill suited to the simplicity and explicitness which ought to characterise a book written for the use of London tradesmen.

A Practical Treatise on Diseases of the Urinary and Generative Organs in Both Sexes. By W. Acton.

(Concluded from p. 653 of last Number.)

The subject of the *Second Part* of the work before us is Syphilis. We quote Mr. Acton's definition, because, though clumsily worded, it presents, in one view, many circumstances which it is of much advantage to keep continually in mind:

"Syphilis is a virulent and specific affection, the essential character of

which is its dependence upon a *special* cause, or a distinct morbid poison or *virus*, identical, and hitherto thought peculiar to man.

"Never arising *suâ sponte*, but always, in the present day, the result of contagion from another person, capable of producing, when coming in contact with the economy, local effects, in which we find the fatal cause which has produced them. These local consequences may react on the system, and develop constitutional symptoms which, under certain circumstances, are readily transmissible from the parent to the child, but which cannot again reproduce the specific cause which gave rise to them. Now, although this specific cause may reproduce its effects several times on the same individual (when placed under the necessary favourable circumstances), the general constitutional symptoms will occur but once in a man's life. Lastly, syphilis may be called a disease which most frequently requires a special treatment."

PRIMARY SYPHILIS.

Chancre. The true characters are best observed in the artificial ulcer produced by inoculation:

"During twenty-four hours succeeding the operation, the inoculated point becomes red; in the course of the second and third days, the surrounding parts are slightly swollen, and assume a papular appearance, or already traces of a vesicle are seen on the summit; on the third or fourth day a fluid, which is more or less transparent, is observed beneath the epidermis, and a distinct vesicle becomes apparent, where the papula previously existed, and a dark dot is seen in the centre, owing to the coagulation of the blood which had escaped through the puncture of the lancet; from the fourth to the fifth day, the vesicle assumes a pustular character, and a distinct depression is seen in the centre, so that it represents very distinctly, at this period, the small-pox pustule. The red areola, which has been hitherto gradually augmenting in intensity, now as gradually fades away, and the cellular tissue, which was slightly œdematous, becomes infiltrated with plastic lymph. On the sixth or seventh day, the pustule is observed to be wrinkled, in consequence of the contents becoming thicker, and ultimately a crust takes the place of the pustule. If not interfered with, this crust assumes a conical appearance, increasing always at its base; it may ultimately fall off, or, if removed, leaves an ulcer seated on a slightly œdematous base, in depth equal to the thickness of the skin: the bottom of the ulcer is covered with a whitish pulpy substance or false membrane, which adheres so firmly, that it can with difficulty be wiped off. The ulcer is generally circular, and appears as if made with a *punch*.

"The margin, if viewed by means of a microscope, will be found dentated, and covered with a secretion similar to that seen at the bottom of the ulcer. The border is slightly œdematous and raised, and the areola around it is of a browner tint than at the previous stages; this œdematous condition of the border occasions a slight eversion of the edges, and hence the ulcer may assume a somewhat infundibuliform appearance."

This secretion, removed from the surface of the chancre, and kept in close bottles during seven days, will produce all its effects at the end of that period, proving that the vitality of the part is not necessary for the preservation of the peculiar effects of the virus. To show the very minute quantity of virus necessary for producing specific effects, one drop has been diluted with a pint of water, and the inoculated fluid has produced a pustule. If alkalies or acids be mixed with the virus, and inoculation afterwards attempted, no effects will follow. These same substances will likewise destroy the property with which inoculation has invested the sore, of producing an analogous secretion, provided they be employed at an early stage. Simple substances, or ointments, will have no influence either in destroying or aiding the effects of the secretion.

Mr. Acton does not believe that it has yet been proved that the lower

animals can be inoculated with it, and in a long and interesting note, narrates and criticises the experiments of M. Auzias-Turenne (pp. 354-5). He, however, is of opinion "that syphilis in the human race originally arose from some poison introduced into the economy from animals, and that, thus produced, it has been transmitted from one individual to another." Of course all *proof* of this is absent.

Mr. Acton does not believe that the syphilitic virus will act upon the skin or mucous membrane, while the epidermis and epithelium are uninjured. He also denies a period of incubation, believing that, in those cases in which there has been the appearance of such an event, the virus has entered a mucous or sebaceous follicle, remaining there until the irritation caused by its presence has destroyed the cuticular lining, when the specific effects have immediately shewn themselves.

We would particularly direct our readers' attention to the very sensible and judicious remarks of Mr. Acton on the subject of inoculation, to be found at pp. 363-4.

In regard to DIAGNOSIS, our author believes that nothing but inoculation can *positively* declare a sore to be syphilitic.

In the TREATMENT of simple uncomplicated chancre, Mr. Acton is a strenuous advocate for the employment of caustic; and his remarks are so judicious, that we quote them *in extenso*.

"Experiments on inoculation have incontestably proved, that if caustic be employed soon after the receipt of the virus, all further effects may be stayed; they have, moreover, shewn, that up to the third day the disease is of a local nature, entirely confined to the parts with which the virus has come in contact; and the patient may be guaranteed against the occurrence of secondary symptoms. I would remark here, however, how different are the laws of animal poisons. Glanders, when inoculated, and the pustule destroyed in twelve hours, produces its effects as usual; the rattle-snake poison acts still more rapidly, each animal poison having laws of its own. We may be called in too late; but the surgeon must not be inactive, he must combat the disease with all his means.

"If, however, it may be desirable to cauterise abrasions or excoriations, the injudicious and continued use of escharotics may be fraught with great disadvantage, and caustic may act as an irritant, preventing the healing of a sore.

"This is often witnessed in patients who think that they can treat their own cases, and following, as they believe, the surgeon's plan, employ nitrate of silver most bountifully. Great pain is produced; a deep eschar comes away in the course of a few days, the irritability of the organ is greatly increased; and, being unable to uncover the glans, the patient now seeks the assistance of his surgeon, who, after carefully examining the parts, finds the original sore re-inoculated, and perhaps several other small ones in the neighbourhood. These cases clearly show that the employment of caustic, in injudicious hands, may often do more harm than good; that while the nitrate of silver destroys the virus of one sore, the irritation it produces prevents us seeing the mischief accruing to others; and probably the non-observance of these rules has led to caustic being very much abused. Before we employ nitrate of silver, the part should be carefully cleansed, by being soaked in warm water, as the virus may exist on the surface of the neighbouring skin, and, if not washed off, will re-inoculate the sore when the little eschar falls, and undue blame will be thrown on the caustic. Although, then, no other ulcer exists at the time of using the escharotic, still another sore, or a little pustule, frequently, in a few hours after, will be met with, which, if precautions be not taken, will go on increasing, and the disease will spread rapidly. These circumstances explain several anomalies which have thrown discredit on caustic. The parts should now be carefully dried; and, if it be an excoriation the surgeon is called on to treat, the skin should

be put on the stretch, and the solid stick of nitrate of silver lightly passed across it, so as effectually to whiten the surface in its entire extent. All cracks and crevices must be treated in the same way, and dry lint applied for the next eight or twelve hours after cauterisation.

"Should the surgeon be called upon to treat chancres at the orifice of the prepuce, presenting the appearance of cracks, he must draw back the prepuce gently, and he will be enabled to cauterise the entire extent of the chancre; but, in repeating the operation, let him take care not to rupture the cicatrix, or this linear chancre will extend. The same observation applies to the treatment of chancres on the frænum. To obviate the difficulty of healing such ulcers, I usually divide the frænum, and cauterise the whole of the cut surface. Without these precautions, it may be weeks before you will heal such sores. Reliance must not be placed alone on caustic, and previous ablution, but extension of the disease should be stayed by lotions of an astringent kind. The one I prefer is a solution of pure tannin, in the proportion of two grains to the ounce of water, which not only checks the discharge, but seems to tan or harden the skin. The private patient, however, should be told, that this solution slightly stains his linen with a brown mark, or the lotion may tell tales to the family. To obviate this, a weak solution of sulphate of zinc may be employed, or, if desirable, dry lint; but dry lint has the objection, in some instances, of irritating the part, and prevents the little eschar falling, thus preventing us from re-applying the caustic.

"We now come to consider how soon the caustic should be re-applied. The rule I follow is, to employ it as soon as the eschar is removed, and this will vary in many cases; generally speaking, it is sufficient to cauterise once in twenty-four hours, particularly if the sores be numerous or large. More frequent applications might be useful, did they not produce irritation; and, should swelling of the prepuce arise, the mischief will be greater than by allowing the disease to run its course, as, in the latter case, we should be unable to employ ablution. Before removing the lint, let the part be well soaked, or the little eschar may be detached.

"If, however, nitrate of silver is useful in abrasions and excoriations, reliance should not be placed upon this escharotic in severe cases, or where pustules or ulcers are formed. Experience teaches us that this salt is not sufficiently potent, its action being confined too much to the surface, and repeated applications are necessary, which may be oftentimes inconvenient. Whenever, therefore, the surgeon is called on to treat a pustule which he suspects to be a chancre, let him open it, remove the pus with a point of lint, and fill the little depression with Vienna paste, or cauterise it with the solid lime and potash caustic alluded to at p. 305. In cases where a scab covers the ulcer, the former must be first removed: this is readily done by a poultice or water-dressing, and then, after carefully washing the surface, a layer of one or other of the above-named potent caustics may be placed on the sore, and allowed to extend a little beyond the margin of the ulcer.

"The application of the escharotic is, of course, followed by considerable pain, which gradually goes off; the sore, however, should be exposed until the eschar is dry, or the paste would act on any part it comes in contact with. This eschar falls in due course, and leaves beneath it, generally speaking, a cicatrised spot, or a healthy sore, which has lost its specific action, and heals in a few days under a mild astringent wash.

"Cauterisation, however, will not be found of the same efficacy in very large ulcerations, nor have we seen such favourable results when sores are situated on mucous surfaces, or where they are kept damp; in these instances, the abortive treatment does not succeed. Furthermore, the escharotic is not generally applicable in chancres attended with inflammation. Experience proves here, as elsewhere, that although nitrate of silver may be useful in allaying irritability, and in curing subacute inflammations, its employment in acute inflammatory attacks is very doubtful, or, at most, useful in

but a very few instances; and, though surgeons may derive great benefit from its employment in chronic ophthalmia, in scrofulous constitutions, and in subacute inflammation of the urethra, few, if any, ever recommend it in acute affections of these organs, unless in the single exception of erysipelatous affections of the skin, in which it has been, like many other applications, much vaunted, and subsequently laid aside. When chancres are attended with acute inflammation, caustic will be worse than useless. Experiments prove that phagedæna destroys the virus, and they likewise show us that caustic often increases instead of allaying inflammation; therefore, when the latter is present, recourse must be had to opium, rather than to nitrate of silver, as I shall show when treating of that variety of chancre.

"But it is not alone in acute inflammatory chancre that we must lay aside the use of caustic; we should never apply the salt when previous applications have irritated the sores, or we might continue its use *ad infinitum*, without healing the ulcer." (pp. 389-92.)

Another counter-indication to caustic, is induration of a sore; if it be applied in these cases, great pain will be produced, the sore will become irritable, and gangrene will often follow. In simple cases, Mr. Acton recommends no constitutional treatment, and argues strenuously, and we think with good reason, against the use of mercury.

Inflammatory Chancre is usually met with in young plethoric men, who live high. If it be not treated by active depletion, it may readily terminate in gangrene. Where this occurs, the specific nature of the virus is destroyed, and secondary symptoms never follow. A saturated aqueous solution of opium is the best local application, and opium internally, and in full doses, is generally necessary.

Phagedænic Chancre often occurs in anæmic, irritable, dissipated subjects. It presents the following appearances:

"The phagedænic sore may vary in size from that of a pea to a crown piece; usually it is superficial, rarely extending deeper than the subcutaneous cellular tissue. The shape is more or less round, but still irregular; the edges, of a brownish hue, are usually undermined, and the disease has a tendency to burrow, particularly if position assists it. The base of the sore is somewhat swollen, not, however, indurated; the surface is uneven, covered with little eminences and depressions; presenting here and there attempts at cicatrisation; a more or less adherent yellow matter covers the ulcer, which it may be difficult to remove, or which comes away in shreds. Granulations are altogether absent; or, if any exist, they are observed to be pale, few in number, transparent, and swollen, looking like vesicles; more frequently, however, the surface is of a greyish yellow colour, interspersed here and there with little bloody points or reddish lines. The pus is thin and offensive, holding in suspension the detritus of the tissues and flocculi of pultaceous matter; it is inoculable during the progressive period. The ulcer rarely extends, however, beyond the subcutaneous cellular tissue. It may last a long time, and cicatrisation may be much retarded.

"It is not uncommon to see, on the surface of phagedænic ulcers, a species of ecchymosis and sphacelated spots. There is pain, of a peculiar stinging, smarting kind, which keeps the patient very restless. The general symptoms seldom run high; the fever is rather of an adynamic kind; there is often prostration of the vital powers; in advanced stages of the disease, the appetite is lost; there is pain in the head, palpitation, neuralgic pains, and a peculiar unhealthy hue of the skin; various eruptions may appear, either around the sore or on the body; these may consist of ecthyma, eczema impetiginodes, or rupia, all of which have been and may be mistaken for secondary symptoms. The debility and general prostration of the animal powers gradually increase, and the patient, unless relieved, gradually sinks, worn down by diarrhœa and colliquative sweats. M. Ricord states he has found ulcerations in the intestines, in cases in which he has had an opportunity of performing post-mortems." (p. 405.)

In these cases, mercury is most injurious, but the greatest benefit will be derived from *iron*. Mr. Acton uses the tartrate, but probably any other form would answer as well.

In Sloughing Phagedæna, Mr. Acton has most confidence in opium given freely in large doses. Destruction of the surface of the ulcer by nitric acid is also useful in some cases.

He adds nothing to our knowledge of the best treatment for that most intractable of sores, the Serpiginous Chancre.

The next section contains a very full and interesting disquisition on Indurated Chancre, a most important form, for it is almost always the forerunner of secondary symptoms. In the treatment of this form, mercury is indispensable, and it should be continued as long as any induration remains. But it is not necessary to commence at once, on the first appearance of any hardness, for this may not be of a specific character, but merely the result of irritation, and may disappear under simple application. If, however, the symptoms persist for some days, the mineral should be administered without delay. We strongly commend to the notice of our readers Mr. Acton's plan of administration, which is characterised by great good sense.

In Syphilitic Cachexia, Mr. Acton finds iron of great value.

Urethral Chancre is the subject of the next section. This is the cause of *virulent* gonorrhœa; and its existence explains those cases which have so often given rise to the opinion, that gonorrhœa is capable of producing secondary symptoms. In all doubtful cases, where no sore can be seen on separating the lips of the meatus, inoculation should be practised, to clear up the diagnosis.

Bubo, under its different forms, is very fully described.

SECONDARY SYPHILIS, OR CONSTITUTIONAL SYPHILIS.

Under this head Mr. Acton includes diseases of the skin and mucous membranes, iritis, and affections of the testicle. They are the direct consequences of absorption into the circulation of the syphilitic virus, and are hereditary, or, in other words, capable of transmission from mother to child, but not inoculable. Our author believes that they can never be acquired more than once; *i. e*, that when once the patient has been *thoroughly cured* of secondary symptoms, he will enjoy an immunity ever afterwards, however often he may contract chancre. But really this statement amounts to very little, on further investigation; for who would undertake to say that a patient had been thoroughly cured, when, as he is told over and over again in this same section, relapses are known to be among the most common of occurrences? so much so, that M. Ricord states his belief that we are powerless as regards the diathesis, and always warns his patients of their danger when he dismisses them, after treatment, which, for the time, has been successful.

We would specially direct our readers' attention to the premonitory symptoms as detailed by Ricord (p. 483), and to the rules for diagnosis laid down by the same great authority (p. 496). The passages are too long for extraction, and a mere analysis would be of little value.

In the treatment, Mr. Acton places his chief reliance on mercury, and we believe he is quite right.

Syphilitic Cutaneous Eruptions may all be classed under the following heads: exanthematous affections, vesicular, papular, tubercular, pustular, and ulcerations.

Roseola is the common form of the first, and is often confounded with a similar eruption caused by the administration of copaiba, which disappears whenever the drug is omitted; and also with a form of *pityriasis*. In arriving at a diagnosis in this latter case, Mr. Acton is determined by the co-existence or absence of condylomata, psoriasis palmaris, and sore throat.

Syphilitic vesiculæ are exceedingly rare. Where a patient presenting an

eruption of this kind appears of good constitution, the vesicles being distinct and the intervening skin healthy, the disease is not syphilitic.

Lichen is the usual form of papular eruption: our author believes that both lepra and psoriasis are merely modifications of it.

"Those who have specially written on skin diseases, have, as it appears to us, rendered more difficult an acknowledged difficult subject; they have attempted to create distinctions between *lepra* and *psoriasis*, which, in our opinion, are both terminations of a papular eruption. The *lichen* above-described may become dry at its summit, scales may form, fall off, and be reproduced, and this process may gain the base, and extend itself in an irregular manner, constituting what authors call *psoriasis*. On the other hand, the base of the papule may become scaly, the centre or apex remaining in a natural condition; the result is, that a circle is formed of these little scales, surrounding and surrounded by healthy skin; and as this circle is somewhat prominent, from a slight swelling of the dermis now secreting the scales, it has been considered sufficiently characterised to be termed *lepra*. On the same individual *lichen*, *psoriasis*, and *lepra*, may be seen; and we may here observe, that the little white border, described by M. Biett as characteristic of the syphilitic affection, is often wanting." (p. 508.)

In the diagnosis, he again relies on the same indications as in the exanthemata.

In the treatment, he strongly recommends mercurial fumigations, and we can bear testimony to the value of the plan. The following is the method of administration:

"The patient, having undressed, is seated naked on a chair in a large box, his head being the only part exposed to the air. This box is heated by a furnace, on which the bisulphuret of mercury is placed, in the proportion of three drachms for each vapour-bath. The intense heat applied soon volatilizes the mercury, which quickly fills the well-closed chamber or box with a leaden-coloured vapour that condenses on the body of the patient, who is exposed to its influence for twenty minutes, during the last ten of which he perspires profusely. The box is then opened, and the surface of the body is gently wiped, so as only to remove the drops of perspiration; a gown is now thrown over the body, and towels twisted round his legs, and the patient laid on a bed, thus swaddled up, between two blankets, which are tucked carefully around him, and additional coverings added. The patient is now left for half an hour, during which he perspires freely, and a glass of toast and water may be given. At the end of this time, the wet clothes should be removed, and the patient thoroughly rubbed down; after dressing, he should not at once expose himself to the open air, but remain a short time in a cool room. The vapour, thus administered, may be repeated two or three times a week, for a month or five weeks, and a cure of some of the most rebellious forms of secondary symptoms may be attained. It may be readily assumed that this treatment is one that cannot be easily carried into effect in the country, as the necessary conveniences are not at hand. In these instances, the vapour-bath may be had recourse to, and the cinnabar may be placed on a metal plate over a little charcoal furnace; but, from some experiments which I have instituted, I find that the mercurial vapour is so heavy, that it will not usually rise more than a foot, and the good effects of fumigation will be slight, as compared with those arising from the real fumigating apparatus. The body should be covered with a dark powder when the apparatus is well applied, and gold leaf will detect the presence of mercury on every part of the body. The above remarks, perhaps, explain why fumigations have fallen into disrepute, as the proper means of application are not always at hand." (pp. 511-12.)

Mr. Acton does not believe that condylomata are inoculable. As local treatment, he recommends a solution of chloride of soda as a lotion to bathe the parts twice a day; the parts should be well dried, and calomel be sprinkled upon them, and dry lint kept between the excoriated surfaces.

Under the head of pustulæ, he includes rupia, bullæ, and impetigo of the scalp. He finds the emplastrum ammoniaci cum mercurio an admirable local application.

In the local treatment of alopecia, Mr. Acton recommends stimulating washes, as, equal parts of rectified spirits, eau de Cologne, and castor oil, or, if a stronger one be required, equal parts of vermy water and tinctura lyttæ, some pommade being used also.

The throat is very frequently the seat of secondary symptoms. Patches of erythema appear, which become prominent, and then pale in the centre, extending in size. They are often of a circular shape, or like the figure 8 ; they frequently ulcerate ; their most common situation is on the tonsils, the sides of the tongue, or near the frænum ; they are met with less frequently at the corner of the mouth, and on the dorsum of the tongue. Generally the patient has other secondary symptoms at the same time.

The remainder of this chapter is occupied with Syphilitic Affections of the Eyes and Testicle, and Germinata, or Tubercles of the Scrotum, for which we must refer to the original.

TERTIARY SYMPTOMS.

Under this term are included those constitutional syphilitic affections denominated Nodes, Inflammation of the Periosteum, Exostosis, Caries, and Tubercles of the Subcutaneous and Submucous Tissues. Like secondary symptoms, they are not inoculable, and they are also incapable of transmitting constitutional syphilis hereditarily.

This chapter (which is almost entirely composed of extracts from M. Ricord's lectures), is full of interest; but we have already occupied so much space, that we can do no more than direct attention to it.

Causes of Death from Syphilis. Here we must request attention to the following table, because it very strikingly illustrates the fallacy of general opinions, not based on figures. Few, we suspect, would have imagined that syphilis had so small a number of victims in the metropolis.

" Table, *showing the Fatal Cases of Syphilis in Adults, which have occurred in the Metropolis during the years* 1846, 47, *and* 48*; distinguishing the Males from the Females, and the Diseases of which they died, at different periods of ten years.*

	Females.						Males.						Male and Female of all ages.
	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	Of all ages.	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	Of all ages.	
Syphilis	3	12	7	7	2	29	4	4	2	..	4	14	43
Phagedænic disease	2	3	..	..	..	5	2	..	..	..	..	2	7
Disease of bone	..	1	1	..	1	3	..	1	..	1	..	2	5
Ulceration of larynx	1	2	..	..	..	3	1	5	..	..	..	6	9
Venereal disease	..	3	1	..	..	4	1	2	..	..	..	3	7
Consumption	2	6	1	..	..	9	1	6	..	2	1	10	19
Chest affection	1	2	..	..	..	3	1	1	..	..	1	3	6
Paralysis	..	..	..	1	..	1	..	1	..	..	..	1	2
Cachexia and debility	2	2	3	1	..	8	..	..	1	3	..	4	12
Erysipelas	5	1	2	..	..	8	3	5	1	..	..	9	17
All diseases ..	16	32	15	9	3	73	13	25	4	6	6	54	127

" On looking over this table, the first thing that strikes the surgeon is the paucity of fatal cases from syphilis in adults. Notwithstanding the frequency of the complaint in the metropolis, as shown from preceding pages, only 127 deaths are noted in adults, out of a population amounting to more than

2,000,000; during 156 weeks, the average is not one a week. This, and a succeeding table on the proportion of deaths from syphilis in infants, p. 645, shows that syphilis proves most frequently fatal to children under one year of age; a fact, previous to the formation of these tables, which was not known to the profession.

"This table, moreover, contradicts the very prevalent opinion, that a large number of women, particularly prostitutes, die annually of syphilis. In the above table we find 73 women only to 54 men; and this proportion is the more striking, if we recollect that the female population of London is much more numerous than the male, in the proportion of 120 females to 100 males, or about five males to six females." (pp. 595-6.)

Mr. Acton gives some interesting cases of a peculiar form of monomania, to which M. Ricord has applied the name of Syphiliphobia.

Syphilis in Infants. What is said on this subject deserves attentive study; we can merely indicate the points which Mr. Acton argues and illustrates. A woman may contract syphilis during the time she is pregnant, and infect her infant, the father being healthy; but the latest period at which this may occur is not ascertained. A man labouring under secondary syphilis may beget an infected infant, the mother remaining free. A mother labouring under syphilis may suckle her child without giving it the disease. Mr. Acton does not believe that a nurse labouring under secondary symptoms can infect a child. He thinks that an infected fœtus may contaminate the mother, and relates a case, which, however, is not conclusive. Mr. Acton does not believe that an infected infant can contaminate the wet nurse. We cannot assent to all of these propositions; but on the present occasion we have no space for a statement of our own views.

We have now brought our task to a termination: and, in taking leave of Mr. Acton, we feel that it is our duty to commend his work most cordially to the notice of our readers. Our analyses show that the book is essentially useful and practical; and we have left untouched much that is alike interesting and important. Still it is not faultless. The style is too diffuse, and almost every chapter would bear condensation with advantage. There are also too many typographical errors and literary inelegancies. Notwithstanding, however, its blemishes, Mr. Acton's work is the most useful in our language upon the subjects of which it treats.

An Inquiry on the Subject of Vaccination, Addressed to the Royal Medical and Chirurgical Society. By Benjamin Ridge, M.D. pp. 31. London: 1851.

This pamphlet is in a great measure made up of quotations, about one half of it being composed of extracts from the works of Dr. Jenner, and from a previous essay of the author. Dr. Ridge does not appear to think very clearly; and from this or from some other cause, he has failed to present his views in a perspicuous manner. As far as we have been able to deduce them from the work itself, they may be thus stated:

Dr. Ridge, aware of the recurrence of small-pox after Vaccination, and knowing that this result had been made use of to disparage the practice altogether, brings forward a theory of his own to account for the failure of the operation, and to show that an unsuccessful result is not dependent on any inherent want of prophylactic virtue in the cow-pock, but arises from the choice of unsuitable periods for its employment. According to an alleged discovery of Dr. Ridge, in 1842, and published in 1845, two membranes, not previously known, were found by him to exist in the fœtus, and young of man and other animals. The first was described as a true membrane for the meconium; the second, as a vascular network of vessels, lying between the meconic membrane and the true mucous membrane of the intestines, forming also a true membrane, named the rete vasculare. The use of the

meconic membrane, according to Dr. Ridge, is "to detain effete matters within the alimentary canal, instead of their lodging on the mucous membrane, and to prevent the bile flowing into the alimentary tube, where it could have no duty to perform, as chylification is not necessary to fœtal life." He adds, "were it not for the intervention of these new structures, there would be no hindrance to the absorbents acting on the contents of the bowels, and taking up and carrying into the system an excrementitious deposit. The meconic membrane is plainly a false mucous membrane, which is present for a certain time only, and for a specific purpose, as we find that that portion of it which is situated on the rectum, comes away, in some instances, entire with its contents, as a cul de sac; though probably, in the more numerous cases, it breaks and comes away piecemeal with portions of the meconium. The rete vasculare appears to be provided by nature, for the nourishment of the meconic membrane, as well as the mucous membrane on which it lodges, and to sustain the functional integrity of both during fœtal life. And if these new structures perform highly important duties during fœtal life, they appear to have equally important uses after birth. From this period, all animals are as dependent on what they make within themselves by the decomposition and appropriation of their own tissues, as on what they take of foreign substances to support life. The action of the oxygen imbibed, on the animal tissues, constantly consumes them; and these, being in an hourly stage of decomposition, produce carbon which they breathe, and ammonia, which generates nitrogen, the active and primary agent of their whole vital system. What is there to interpose between the metamorphosis of existing tissues in the new-born child, supposing, as we have hitherto done, that there are no such structures as the meconic membrane and rete vasculare?"

The existence of these membranes, which Dr. Ridge thinks he has discovered, is a question of fact, not yet confirmed by any one; and the theoretical purposes they are alleged to subserve in the animal economy, we have given in the words of the writer himself, for, not very clearly understanding his views, we fear we should fail in conveying any very distinct impression to the reader. But it will naturally be asked, "What has all this to do with vaccination?" The writer shall again speak for himself. "From what I have said in connexion with the presence of the meconic membrane and rete vasculare, it will be seen that light diet, with free air and oxygen, so act upon these structures, as to support life vigorously and healthfully; *and in doing this, infants are more able to throw off or avoid diseases of a character like the small-pox.* If infants, therefore, have this innate power of counteracting natural diseases, *they have equally the power of throwing off* that which is thrust upon them, or *whatever they are inoculated with.*" The writer adds, "I do not think that there is as much dependence to be placed in the preventive action of vaccination, if performed within the first three months, as when it is done after that time; and, if it must be done previous to this time for the parents' satisfaction, it should be done again within the year for the child's safety." Dr. Ridge further adds, "No child that I have attended during the last two years, has ever had the small-pox in that time; and none that I have vaccinated after the age of three months have failed in taking the virus. Before that age, the proportion was large of those I had to revaccinate a second and even a third time. What then was the cause why these threw off the vaccination, unless indeed it was the power of the healthy vital agents, in course of metamorphosis resisting the disease?" or as he further states, "the great transition, and consequently resistive state an infant's secretions are always in during the influential presence of these newly discovered structures, particularly the rete vasculare" Further on, the writer extends the proper period for vaccination from three months to a much longer period. "From subsequent reflection," he says, "and experience, I am now prepared to extend that time to nine, or even twelve

months, as the safest period—because it is impossible to say at what precise age a child may have arrived at that condition of body, most appropriate for the reception of vaccine virus." Again, "the proper time for vaccination is that time within the year when it may be reasonably supposed, that, the newly discovered organism being disposed of, the transition state of the system is less active." We should not, however, by any means, advise our readers to defer the vaccination of their little patients from the fourth to the twelfth month, on grounds so fanciful as those adduced by Dr. Ridge, even though further inquiries should shew that the new tissues which he describes are really distinct and special organisms. For, granting this, the functions which he attributes to them are purely theoretical, and it will take a long course of observations to establish the doctrine, that for the first twelve months of its existence, an infant is usually in such a state of high health (transition state), as to resist the influence of the virus of the human or cow small-pox. The reader who consults the pages of Dr. Ridge, will therefore be astonished to find on how small an amount of proof he attempts to establish opinions so new, and which if correct, are of so much practical importance. His facts have little to do with the points at issue; and they bear a less proportion to his mass of theory, than Sir John Falstaff's half-penny-worth of bread to a gallon of sack. It is well known, that infants of a few days old may take both cow-pox and small-pox. Why does Dr. Ridge fail to notice this class of cases?

We shall now conclude by noticing a very questionable assertion of the writer, viz., that "Virus allowed to dry between two pieces of glass, is deteriorated or destroyed, by crushing molecular continuity." This assertion is not likely to pass current in the sister isle, where the practice, both in the Dublin Vaccine Institution, and throughout the country, is to preserve the virus in the manner denounced by Dr. Ridge. In Scotland, also, and in extensive districts of England, Wales, India, America, and the British Colonies, it is the method most commonly adopted.

Principles of Physiology, General and Comparative. [*With* 321 *wood engravings.*] By William B. Carpenter, M.D., F.R.S., F.G.S., etc. *Third Edition.* pp. 1098. London: 1851.

This is a book without a rival: and Dr. Carpenter has laid the medical profession, as well as all who study and who love natural history, under deep and lasting obligations by its production. Our limits forbid us from indulging in comment or criticism; and we can only heartily commend the work to our readers.

We regret to observe from the preface, that the author does not even hope for any pecuniary recompense for the great amount of successful labour bestowed upon his book. We perused the following paragraph with interest, and much regret. "The whole of his" (the author's) "disposable time has been devoted to it for nearly two years, not merely without the anticipation of the slightest pecuniary reward, but under the certain loss involved in the relinquishment of other literary engagements of a remunerative character: and the sale of the entire edition will not do more than remunerate his liberal publisher, for the very large outlay which he has incurred in the production of the work, and more especially for the beautiful series of illustrations with which it is embellished, most of them having been executed expressly for it by Mr. Bagg." *(Preface.)*

The Laws of Health in relation to Mind and Body: a Series of Letters from an Old Practitioner to a Patient. By Lionel John Beale, M.R.C.S. pp. 306. London: 1851.

This is a sound and sensible book, which, if generally circulated, is likely to do much good. Though not beneath the perusal of the profession, it is more adapted to the wants of educated laymen.

CRITICAL DIGEST OF THE BRITISH AND FOREIGN MEDICAL JOURNALS.

PRACTICE OF MEDICINE AND PATHOLOGY.

THERAPEUTICAL REVIEW OF TREATMENT ADOPTED IN THE DISEASES OF THE NERVOUS SYSTEM.

From the *Annales Medico-Psychologiques* for April 1851, p. 322.

Ferruginous Preparations in Chlorosis. The action of iron in the cure of chlorosis has long been known ; and its efficacy in this disease places its preparations in the rank of the most energetic medicines. But the same compounds do not suit all patients. There are some which produce upon chlorotic patients curative effects, which they have never succeeded in producing upon others. Hence arises the necessity of varying the administration of the compounds which have iron for their base. Here the following question naturally presents itself : Chlorosis being a blood-disease, it ought not to be classed with nervous affections, and the therapeutics of these last diseases has nothing to do with chlorotic affections. It is not proved, however, that the primary cause of chlorosis does not reside in the nervous system, and that it is not a particular modification of the nervous apparatus of digestion and assimilation, which impoverishes the blood and impresses upon patients that physical and moral character, which it is impossible to mistake when once it has been seen. Thus chlorosis, and many other diseases, belong to the department of psychology : and it is probable that they will be included successively in the ranks of affections of the nervous system, in proportion as we advance in the study of this class of diseases.

M. Sandras has treated some chlorotic patients, who had sunk by loss of blood to an extremely advanced state of decay, and a kind of stupidity, by the daily administration of ferruginous pills, with calcined magnesia, baths at twenty-five degrees (77° Fahr.) every two or three days, and the use of substantial food. By this treatment, the most severe symptoms disappeared very readily, and there remained no trace of chlorosis.

The iodide of iron, and iodo-ferruginous pills, have produced good effects in cases in which the ordinary preparations of iron, as the carbonate, the lactate, etc., did not produce any advantageous results.

Iron is not, according to M. Hannon, the only metal which succeeds in curing chlorosis. He has employed preparations of manganese with success. But he has since discovered, that neither manganese nor iron were assimilated : that they were eliminated, and that, consequently, they had no influence in the cure of chlorosis. The iron found in the blood would result from the food, and not from the remedies which were administered.

Gastralgia. Treatment by the Subnitrate of Bismuth, united with Belladonna. The subnitrate of bismuth enjoys a certain reputation in the treatment of gastralgia. It cannot be said, however, to be an active and faithful remedy. Sometimes it does not act even in a large dose ; at other times, its action is no longer exercised in cases where it had previously been administered with success. According to Professor Caizergues of Montpellier, the subnitrate of bismuth is more efficacious when it is united with belladonna. He orders this mixture in painful affections of the stomach, properly so called, and which are isolated from all inflammatory complication, and against affections of the stomach which are connected with a positive disease, or a general morbid state, like chlorosis, for instance. The Professor generally employs the following formula. ℞ Subnitrate of bismuth ten grammes, extract of belladonna one gramme ; make forty pills, two to be taken night and morning.

Lead-colic: Utility of Belladonna. The exclusive purgative method has its advantages; but it has also its inconveniences. It is directed against poisoning; for in provoking catharsis, it drives out, by over-exciting the excretory organs of the intestinal system, a part of the poison absorbed, and then it destroys the obstinate constipation which is one of the most marked characters of lead-colic. But antispasmodics supply a want, since the sensibility is energetically called into operation in this disease. The narcotic method may then have some success, and does not deserve to be entirely abandoned to give place to the purgative method. Stoll was a partisan of the pure narcotic method. Dr. Triberti of Milan employs the mixed treatment, in which opiates are administered internally and externally in a full dose, and with such success, as to obviate the necessity of having recourse to purgatives. When narcotics alone are sufficient for the cure, the mixed method becomes the pure method. M. Marion, physician of the Hôtel Dieu, at Nantes, has administered the extract of opium with great success in the dose of 30 to 60 *centigrammes* (gr. ivss. to gr. ix) a day, like Dr. Triberti; the pains quickly ceased, and, with a small dose of castor-oil and some emollients, the constipation likewise disappeared. M. Malherbe thought, in 1846, that belladonna might be advantageously substituted for opiates. Since the trials of treatment by this method, the success appears to have been sufficient to cause its adoption. The following plan is adopted by M. Malherbe, in the belladonna treatment: on the first day, five *centigrammes* of the extract, with 10 *centigrammes* of the powder of the root. When the first dose is without effect, that is to say, when neither the pains nor the constipation have diminished, the second is composed of 10 centigrammes of extract of belladonna with 20 of the powder. At last, M. Malherbe has gone as far as 20 centigrammes of extract, with 40 of the powder; but he has not carried the dose farther. With this treatment, the greater number of patients have been relieved, from the first to the third day; in the cases in which the symptoms offered a great resistance, and could not be subdued by opium, belladonna has triumphed. Belladonna is considered by M. Malherbe as an antispasmodic, and anticonstipant.

Enteralgia, or Nervous Colic. Treatment by Alum. The sulphate of alumina and potash has its advocates in the treatment of lead-colic. MM. Kapeler and Gendrin, and M. Brachet of Lyons, have been successful with this drug. The analogy of the symptoms of lead-colic and nervous colic, has suggested to M. Philipeaux, the employment of alum in this latter disease. The treatment consists in employing four *grammes* (3 i) of alum dissolved in a soothing potion, and given in spoonfuls. But, in order that the remedy may act efficaciously, and that it may not, on the contrary, produce an exasperation in the morbid state, there must be neither frequency of the pulse nor symptoms of intestinal strangulation; the colic must be purely nervous,—a fact which is often difficult to be ascertained.

Ammonia — its Efficacy in Hoarseness and Aphoni: Imperial Potion. After having disembarked at Cannes, on his arrival from the isle of Elba, and while he was stretching to Lyons, the Emperor Napoleon was seized with a sudden hoarseness. The next day he was to make his entry into Paris, where he had fatiguing duties to expect, for there would be orders to give, reviews to superintend, deputations to receive and to harangue. The emperor was forced to pay with his own person for the success which was to open to him, without a battle, the gates of the capital. He sent for his physician, Dr. Foureau de Beauregard, and declared to him that he must be positively relieved of his hoarseness. The physician prescribed the following draught: ammonia 10 drops, syrup of erysimum 45 grammes, infusion of tilia 100 grammes; to be taken at one dose. Foureau related that the cure was sudden, which procured him the thanks of the emperor; hence the name of *imperial*, which has been given to the potion. It is possible that, in

this imperial potion, the ammonia may, by its diffusive properties, modify favourably an inflammatory state, or a state of nervous excitement.

Eclampsia: Treatment by Ammonia. A lying-in patient, who had lost much blood, had an attack of eclampsia. The ordinary means not producing any result, Dr. Vanoye ordered a potion containing some drops of spirit of ammonia, with some syrup of mint. The convulsions diminished a little; and, as they were reproduced at the termination of an improper bleeding, the same means were repeated, and they finally disappeared. Although ammonia appears to be indicated in cases of eclampsia, it may fail to produce the effects which we may expect, particularly when the hæmorrhage has been considerable; for then the medicine may cause a state of over-excitement, and deceive us in the result which we think to attain.

Delirium Tremens: Ammoniacal Potion. Delirium tremens is frequently developed in wounded persons who have used spirituous drinks in excess. This disease is efficiently combated by opiates; but, according to M. Jobert, it is prevented by the administration of the following mixture. Distilled water of tilia 128 grammes, ammonia 4 drops, syrup 32 grammes. This potion is given in spoonfuls every two hours, to patients who have received wounds during intoxication; and to those who, having been addicted to drinking, present, during treatment, a state of exaltation sufficiently marked to cause us to apprehend an attack of delirium.

Chorea: Treatment by Chloroform in Frictions. Chloroform is an agent which will eventually become an extremely powerful instrument in obtaining very varied results. Since it deadens sensibility, it must calm and even completely appease the different states of over-excitement of the nervous system. We cannot therefore be surprised that Dr. Gassier has performed three cures of chorea by making, along the course of the vertebral column, frictions with a liniment composed of chloroform and oil of sweet almonds, in equal parts. But what is remarkable in these three cases is, that they were all caused by fear. Thus, then, there did not exist any initial morbid state; an accidental nervous derangement was developed on a particular occasion, and nothing more. In such circumstances, chloroform has stopped the chorea; but if the temperament had been concerned, as in cases which are developed without appreciable moral cause, chloroform would not have sufficed, but it would have been necessary to have recourse to other means.

LEMON JUICE IN ACUTE ARTICULAR RHEUMATISM.

In a certain class of cases, we believe the treatment of rheumatism by lemon juice, as advocated by Dr. G. O. Rees [London Journal of Medicine for 1850, p. 927], to be most satisfactory. For this reason, we state that it is being tried with good results both at home and abroad. Dr. Perkins of Brussels, and Dr. Giraud of Grenoble, have lately testified in its favour. (Vide *Journal des Connaissances Médico-Chir.*, Nov. 1850, and 16 May, 1851.)

AUTUMNAL DIARRHŒA.

As this disease is likely soon to be more or less prevalent, we would invite our readers, in those cases—and they are not few in number—in which may be traced an intermittent type, to combine the use of quinine with their other remedies. In our own practice, we have found nothing so successful in the majority of cases as an opiate draught, followed in two hours by a full dose of castor oil; and then a short course of quinine with minute quantities of iron. Dr. James Bird, two years ago, said, "Dr. Cormack, of Putney, informs me, that acting on a suggestion which he (Dr. Bird) had made to him, now nearly twelvemonths ago, he has found the citrate of iron and quinine one of the most useful medicines which can be given in the *cholerine*, now almost

universal on the Surrey side of the river". [London Journal of Medicine, 1849, p. 842.] Dr. J. P. Evans, of Tazewell, Tennessee, in an Essay on "*the Diarrhœa of the South*," in the *Charleston Med. Journal and Review* for May 1851, writes as follows:—"While in Mexico, I was furnished with various *recipes* for diarrhœa, of the precise elements of which I made no record, but some of them emanated from respectable sources, and I noticed that quinine entered into the composition of many of them, particularly of some which were reputed to be of great value in the region of the Rio Grande." . . . "It is very probable that it (quinine) might be profitably employed even where periodicity could not be traced, as, according to Professor Drake, it is a sedative and antispasmodic narcotic."

DR. PANUM ON THE TRANSMISSION OF MEASLES.

The *Archives Générales de Médecine* for April 1851, contains a memoir by Dr. Panum, of Copenhagen, on an epidemic of measles, which visited the Færoe Islands from April to October 1846. The article originally appeared in the *Archiv für Physiologische Heilkunde.*

Extraordinary facilities for making accurate observations were afforded to Dr. Panum (who, with Dr. Manicus, was sent to the islands by the Danish Government), by the circumstances, that not a single case of measles had occurred there since 1781; that the islands are separated from the rest of the world, both by their geographical position, and by a peculiar commercial monopoly in force there; that the islanders are congregated into small villages, of at most two hundred inhabitants,[1] having very little intercourse with each other; and that intercourse was rendered still more rare by the fears excited by the epidemic of measles. Out of 7,782 inhabitants, more than 6,000 were attacked; and, in some of the villages, more than 80 per cent. of the peasants were at the same time confined to bed.

Dr. Panum makes the following remarks on the period of incubation in measles:

The duration of the period of incubation in measles has not been satisfactorily determined: it would vary, according to authors, between eight, ten, and fourteen days. Some physicians, more cautious, refuse to assign a fixed duration to the first stage. In large towns, it is impossible to know the precise moment at which an individual is subjected to contagion: sufficiently accurate results can only be obtained by being placed in such a position as I was in the Færoe Islands.

The first islander attacked with measles was a labourer, living at Thorshavn. He had left Copenhagen on March 20th, and had arrived in perfect health on the 28th; on April 1st, he was taken ill. About fourteen days later, his two most intimate friends had the first symptoms of measles. This case, which I did not witness, awakened my attention, and led me to undertake researches on the duration of incubation.

On June 4th, ten men of Tjornevig, in the same boat, took part in a large fishing excursion with the inhabitants of another village; on June 18th, all were attacked with measles, after having had premonitory symptoms from two to four days. They had only been in contact with some fishermen from Westmannhavn, who were convalescent from the same disease, or who had at least lived among others who had measles. Twelve or sixteen days after the appearance of the eruption in these persons, almost the whole population of the village was attacked. This was already sufficient reason to lead me to suspect that the contagion may remain in the organism in a latent state, or at least without giving rise to a specific eruption, during an average period of thirteen or fourteen days. I collected accurately, in fifty-two localities, the names of the persons who were first attacked, the date of the eruption,

[1] Thorshavn, the seat of government, contains 800 souls.

and the date of the attack in the inhabitants to whom the disease was communicated. These observations all tended to confirm my supposition.

At Hattervig, a young man, the first who was attacked, assured me that the eruption appeared on him ten days after his arrival from an infected village. This was an exceptional case; but the patient himself afterwards contradicted the false account which he had given me. At Fuglefiord, the daughter of my host had recovered from the disease, from which the nine other members of the family had remained free. I inquired on which day the exanthem had appeared on her; and underlined the fourteenth day in an almanac, telling them that that was the period at which the disease should re-appear. On my return, I learned that the eruption had appeared on all the nine individuals on that day.

The Great Dimon is a very small isle, inhabited by only eighteen persons, of the same family. Some of the men went one day in a boat to Tveraa, where the epidemic prevailed, and remained only a few hours. Up to the tenth day, these men remained in perfect health; on the fourteenth day, the eruption appeared on all; and fourteen days later, it appeared on all the other members of the family. At Skaalevig, the only isle where the houses are much isolated, the contagion spread less rapidly; but it still afforded a confirmation of the rule which I have laid down.

It may then be admitted, as a constant law, that the contagion of measles, when introduced into the organism, does not manifest itself at once; and that, after a premonitory stage of uncertain duration, the eruption appears on the thirteenth or fourteenth day after the infection. Without doubt, the constitution, regimen, etc., of the patient, will somewhat hasten or retard its appearance; but their influence is much less than might at first be supposed. The greatest variation did not extend beyond twenty-four hours. . . . According to observations made at Copenhagen, the period of incubation of small-pox is fourteen days: the analogy which these two eruptive disorders thus offer is interesting.

The indeterminate duration of the precursory catarrh would seem to throw some incertitude over my researches. Some patients suffered from cough, slight ophthalmia, and febrile disturbance, six or eight days before the eruption; others only perceived these symptoms for four or six days; and most, indeed, did not experience them more than from two to four days. Exact results can only be arrived at, by comparing the time of infection and that of the appearance of the eruption.

If we admit that the incubation of measles lasts from thirteen to fourteen days, and that this period elapses between the appearance of the eruption in an individual, and its subsequent appearance in those infected by him, is it not evident that contagion takes place during the period of efflorescence? Measles certainly are not contagious during the latent stage; and it is difficult to decide whether they are so during the precursory stage. They are generally believed to be especially contagious during the period of desquamation. For my own part, I have not seen a single case to convince me that this supposition is correct. The transmission, if the duration which I have assigned to incubation be correct, is, almost always, if not constantly, effected when the spots make their appearance. In no case which I witnessed, was an individual attacked with measles more than fourteen days after the disappearance of the exanthem in those who might have infected him. In a word, measles are very contagious at the commencement of and during the eruption; it is doubtful, on the contrary, whether they are so in the catarrhal and desquamative stages.[1]

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[1] Dr. Panum by no means proves that measles are not contagious during the period of desquamation; and some of the instances which he relates rather tend to confirm the opinion which we entertain—that they are so. Thus, the ten men of Tjornevig, to whom he refers, "had only been in contact with some fishermen

With regard to second attacks of measles, it is remarkable that all the old people in the Færoe Islands, who had been attacked in 1781, and who were still numerous, escaped in 1846: I could cite a hundred instances. This observation is the more conclusive, as even very advanced age did not diminish the susceptibility. As far as I know, very aged individuals, who were not exposed to the first epidemic, were all affected by the recent one; while some young persons escaped, though living among the sick.

The following facts may throw some light on the question, as to the degree of intensity which may be attributed to the contagious principle of measles. On June 2nd, some men embarked at Funding for Klaksvig, to buy goods: the buyers could not return, until they had assisted in unloading a vessel, on board of which were men just recovered from measles, which also prevailed in the port. The people from Klaksvig entered no house but the counting-house. On their return, they threw away the coverings of their goods, washed themselves carefully, and put on other clothes, etc. No one was attacked till July 3rd, when the disease appeared at Klaksvig. Five inhabitants of Nordre-Gjov, who did not take the same precautions on their return, after having been exposed to the same influence, were seized on the fourteenth day from their exposure to the contagion.

On my arrival in Klaksvig, the terror was so great, that no one would approach me, although the islanders do not commonly believe that medical men convey contagious miasmata. Three weeks before Whitsuntide, the surgeon of the country had to pass the night in the village, in attendance on a patient; the measles appeared fourteen days after, in the house where he had been. No inhabitant, either of the house or of the country, had had communication with an infected place; and no other stranger had come into the village. At Midtvaag, the measles were introduced by a midwife, who had attended the patients in a neighbouring island. The young girl who washed the midwife's linen was the first person attacked. These instances tend to show that measles possess a greater power of contagion than is generally supposed.

Whatever may be the value of simple prophylactic measures, isolation is without doubt the surest method of arresting the development of the disease. Houses have been preserved from infection, in several villages, by interrupting communication. I will refer to two families at Saxen, ten at Midtvaag, ten at Sandevaag, and half the village at Thorsvig. Various localities, with populations varying from twenty-six to two hundred and forty persons, were preserved by a vigorous *cordon sanitaire*. About fifteen hundred islanders may be considered to have owed their health to the establishment of quarantines.

Of 6,000 cases, of which I saw and treated more than 1,000, there was not one which authorised me to admit the existence of morbillar miasmata. Everywhere the disease was propagated from man to man, from village to village; contagion, mediate or immediate, was evident. The two physicians who practised in the Færoe Islands, believed measles to be miasmatic, and capable of transmission by the air; hence no precautions were at first taken to prevent communication. Experience had already shewn, in 1781, what good could be effected by quarantines; but these were not had recourse to until too late. It is to be hoped, that the experience so dearly bought in 1846, will be profitable. The exclusively contagious nature of measles is so clearly proved, that the practitioner would, I think, fail in his duty, if he did not act accordingly.

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from Westmannhavn, who were *convalescent from measles*, or at least had lived among persons affected with them." Again, the infection of the men of Nordre-Gjov, after their visit to Funding, shows distinctly that measles can be taken from men "just recovering from them." We can scarcely imagine the convalescents at Funding to have been working on board a ship during the eruptive stage. Scarlatina and other disorders are contagious during the stage of decadence: the same may be reasonably expected in measles. [EDITORS LOND. JOURN. OF MED.]

EXTERNAL APPLICATIONS IN DROPSY.

The treatment of dropsy by the external application of diuretics was some time ago made the subject of an able article by Professor Christison, in the *Edinburgh Monthly Journal.* The following observations, by Mr. W. W. Finch, of Ausable Forks, New York, are contained in the *Boston Medical and Surgical Journal* for March 19, 1837:

Some six years since, I was called to see a child, two years old, with general anasarca and ascites. He had been under treatment some three or four weeks; but was steadily getting worse, and had been left by the attending physician as a hopeless case. His whole body was enormously distended; his features seeming hardly human. The appetite was voracious; he had constant thirst; the bowels were very loose; the urine scanty; the pulse feeble, quick, and very frequent; the patient was restless, and constantly moaning. The usual treatment with diuretics and cathartics would reduce the distension a little; but what was gained one day would be more than lost the next; for the patient was evidently losing strength, while the disease was steadily gaining ground. As a forlorn hope, I directed the following liniment to be applied to one half the surface of the body, three times a day. ℞. Volatile liniment, two parts; tincture of cantharides, tincture of digitalis, tincture of colchicum, tincture of iodine, of each one part. The patient was well in a few days, without taking a particle of medicine internally.

Since then, I have used the liniment repeatedly with advantage; several mild cases yielding to this alone, without any other treatment. The liniment is peculiarly adapted to the treatment of dropsy in old persons, children, or delicate females; where the powers of life are feeble, and the stomach and bowels too irritable to bear medicine internally.

I have lately treated another case similar to the one mentioned above:— the child having been more or less bloated for several months; the legs and body were as full "as the skin could hold". All appearance of disease was removed after a few days' use of the liniment.

That there is any especial virtue in the particular form or combination of remedies in the liniment, I do not believe; but that external remedies can be used with advantage in most cases of dropsy, I am sure.

TREATMENT OF CHOREA BY STRYCHNIA.

It is not irrational to use strychnia as a remedy in chorea, a disease which is undoubtedly cured by several other medicines, whose chief action is upon the spinal cord. We can even credit its producing some very striking recoveries; but, nevertheless, having in hospitals and elsewhere seen the hazards which attend the use of this medicine, we are not disposed to approve of the heroic plan of treatment recommended by M. Trousseau. The degree to which he pushes the medication actually amounts to poisoning, a proceeding which is never justifiable in therapeutics, when it can be shewn that other and safer measures have in like cases accomplished cures. Iron is a medicine which we have found not only safe, but also very efficacious in chorea; and one of the best forms of administering it is the citrate of iron and quinine. It may be well to make occasional changes, during the course of treatment, in the details of the medication, such as substituting the simple citrate of iron for the double salt, and giving a few drops daily of Fowler's solution of the arsenite of potash. It might not be wrong even to assist other remedies, in obstinate cases, by giving strychnia; but we would not take the responsibility of making the muscles of our patients rigid by it, to the extent advocated by M. Trousseau. The remarks at p. 54 of our number for January 1850, may be read with advantage, in connexion with this subject. The following is an abridgement of the paper of M. Trousseau, which has suggested the forgoing remarks.

Abstract of M. Trousseau's Memoir. M. Trousseau uses the syrup of sulphate of strychnia, containing five *centigrammes* of the sulphate in a hundred *grammes* of simple syrup (one grain to two thousand). The method which he follows is to give gradually increasing doses. According to the age of the child, he begins with two or three teaspoonfuls of the syrup for the first day, and the number is daily increased up to six. A dessert-spoonful is then daily substituted for a teaspoonful: when six have been reached, tablespoonfuls are then in like manner gradually substituted. The number of tablespoonfuls should be augmented beyond six, up to seven, nine, or ten, but more slowly, and at intervals of one or two days. These quantities should be regularly divided between the twenty-four hours, so that a portion may be taken every four hours. The dose should be increased so far as to produce tetanic rigidity; and this should be carefully watched for by the persons about the patient. When this appears, the dose must not be increased; and the quantity to be continued should be somewhat diminished. In general, the daily dose of the medicine varies from two to ten *centigrammes* (gr. $\frac{1}{3}$ to gr. iss).

One of the first symptoms of the tetanic effects of the strychnia is, itching of the hairy scalp and skin. The masseter muscles are first attacked; and when the patient complains of difficulty in opening the mouth, the dose should be continued, but not increased, as the medicine has a tendency to accumulate its effects. Sometimes there will be, after some rigidity, an interval of two or three days without any marked change; then tetanic symptoms will set in with alarming severity, as if the medicine had been accumulating. In other cases, the doses being the same, the effects will be much greater on one day than another: this may probably be due to meteorological influences. These irregularities ought to be borne in mind by the physician.

Sometimes the dose is not arrested when the first tetanic symptoms appear. The masseter muscles then become so rigid as to impede the speech; next, the patients are often seized with sudden cramps of the legs; and, when they attempt to walk, the body moves forward while the legs remain fixed, so that they fall to the ground. In other cases, instead of persistent tetanic rigidity, there are sudden contractions, so that the patients are thrown down by the rapid action of the triceps femoris muscle. The rigidity, and especially the contractions, appear when the patients make any sudden movement.

The medicine should be continued some days after the choreic symptoms have disappeared, in order to prevent relapses. In above ten years, M. Trousseau says he has seen no ill effects produced by the use of strychnia in the way he describes; and he believes it a safe and efficacious remedy, if carefully and properly administered. [*Révue Médico-Chirurgicale*, Jan. 1850.]

TREATMENT OF CHLOASMA HEPATICUM BY THE EXTERNAL APPLICATION OF TINCTURE OF WHITE HELLEBORE.

Dr. Lilienfeld, having proved the inefficacy of most medicines used as remedies for hepatic spots, and reflecting on the frequent employment of lotions of veratrum album in cutaneous affections, has been led to have recourse to the tincture of that plant, and has obtained most perfect success.

In the first place, especially when the bowels are at all constipated, a cathartic is given; and the patient is then made to use tepid soap and water baths for three or four days, to soften the skin. He is then directed to apply daily, while lying down, some of the tincture of hellebore to the coloured spots, and to wash these parts the next morning with hot soap and water, rubbing them well with a flannel. After three days, the spots usually commence to become pale, and diminish in extent; and, in a very short time, they are generally effaced. Relapses have occurred in no case.

One or two ounces of the tincture of white hellebore are sufficient for each patient: it should be made with the fresh root of the plant, and with alcohol of specific gravity ·830. [*Révue Médico-Chirurgicale*, Jan. 1850; from *Vierteljahrschrift für die praktische Heilkunde.*]

SURGERY.

PROFESSOR BOCK ON GENU VALGUM, OR KNOCK-KNEE.

The following is a translation of a paper published by PROFESSOR BOCK in a Danish journal, the *Bibliothek for Læger*, for October 1850.

The most common deformities of the knee-joint may be arranged under the four following heads.

I. Contraction of the knee *(contractura genu)* is the name given to the condition in which the knee is in a state of abnormal constant flexion, with considerable, little, or no power of motion in the joint.

II. Recurved knee *(genu recurvatum)*. Here the knee is in a state of superextension, and the popliteal space forms the apex of an angle pointing backwards.

III. Genu varum, or bow-leg : called by the Danish wheel-leg *(Hjulbenet)*.

IV. Genu valgum, or knock-knee : in Danish, calf-knee *(Kalveknæet)* ; in German, goat's-leg *(Ziegenbein)*, X-leg *(X-bein)*.

The name genu valgum is borrowed from an imperfect analogy with pes valgus. In the latter, the foot is thrown outwards. In genu valgum, it is not the knee, but the tibia which is pressed outwards ; and the more correct denomination would therefore be tibia valga, if the analogy with the foot were preserved. The same is the case with genu varum.

Genu valgum has been but imperfectly described in surgical works. I have for some time been collecting materials for a more accurate knowledge of this deformity, and will now publish the results at which I have arrived.

The following is a list of the authors in whom I have found genu valgum slightly alluded to.

ANDRY. L'Orthopédie, ou l'art de corriger dans les enfans les difformités du corps. Paris : 1741. 8vo., avec figures. Tome i, p. 280.

NAUMBURG (J. S.) Abhandlung von der Beinkrümmung u. s. w. Leipzig : 1796, pp. 50.

HEIDENREICH (F. W.) Orthopædie, oder Werth der Mechanik zur Heilung der Verkrümmungen am menschlichen Leibe. Berlin : 1827.

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MELLET (F. L. E.) Manuel pratique d'Orthopédie, etc. Paris : 1835.

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PATHOLOGY. In the normal condition, the knee-joint deviates from the long axis of the lower extremity, on account of the greater extension downwards and inwards of the inner condyle of the femur. The thigh-bones hence converge downwards, especially in females, in whom the pelvis is wider, and the neck of the thigh-bone is larger and directed more outward. It is the unnatural exaggeration of this condition to which the name of genu valgum is given. It might be supposed, that this affection is more frequent in the female sex : such, however, is not the case, for it is far more rare in women and girls than in men and boys. Both knees may be affected, but one is generally more so than the other ; and it is then almost always the right knee which is the chief seat of the disease. When one knee alone is affected, it is the right in about twice as many cases as the left. The origin and progress of the disease are gradual and almost imperceptible.

The knee forms the apex of a triangle, the other angles of which are at the ancle and the great trochanter, so that the base consists of the straight line which may be drawn between these points. The altitude of the triangle, or the perpendicular line from the knee to its base, points out the greater or

less degree of the disease ; this may naturally be denoted by the anomalous proportions of the angle at the knee, which, from being very obtuse, becomes, in the more advanced stages, a right or even a very acute angle.

On examining the knee, the following changes are found. On its anterior surface, the united large tendons of the extensor muscles, and the ligamentum patellæ, are found much stretched ; and the more so, in proportion as the knee is bent backward as well as inward. The patella is displaced outwards ; so that, in a more advanced stage of the disease, it rests on the external edge of the knee, in front of the condyles of the femur and tibia. The knee loses its natural convexity forward, and becomes acute-angled on its anterior and outer edge ; and the anterior part which lies more interiorly forms a plano-convex region in front of the inner condyle. On the outer surface of the knee, or in the angular bend, we often find the tendon of the biceps much stretched, as well as one or two portions of the external ligaments extended into sharp strings. The external condyles, both of the femur and of the tibia, are small, and can scarcely be felt in the more advanced stages of the disease. When the curvature is very remarkable, there is a transverse furrow in the skin on the exterior part of the knee. The natural hollow of the ham is obliterated ; and the posterior surface of the knee-joint is more or less plano-convex. The inner surface of the knee forms the obtuse apex of the angle ; and here the internal condyles of the femur and tibia are felt always prominent, usually hypertrophied, and, in rachitic cases, enormously swelled.

The condition of the whole extremity is at the same time changed. The thigh assumes an oblique direction downwards and inwards, towards the opposite knee. The knee is directed inwards, against or behind the sound knee, and the shin-bone assumes a direction downwards and outwards, so that the foot is at a great distance from that on the sound side. As the disease advances, the direction of the foot is changed : but this will be treated of under the head of complications. In children, where the affection is of a truly paralytic nature, and has followed convulsions, there has been constantly observed a sinking of the temperature, as much as two degrees, in the diseased limb. In grown persons, I have not found this symptom. In consequence of the bending of the limb, the distance from the pelvis to the sole of the foot is diminished ; the direction of the pelvis in walking consequently becomes oblique, so that the anterior superior spine of the ilium may be found an inch lower on the affected than on the sound side. This obliquity of the pelvis becomes gradually permanent, so that it is observed both during walking and standing. In cases where the deformity has not yet reached a high degree, and in children, the limb can generally be brought back with the hands to its natural position : but the tension is felt to increase in the biceps femoris and external ligament of the knee-joint ; and, when the force is removed, the limb instantly resumes the bent position. In rachitic cases, not only the internal condyle of the femur, but also, in a still higher degree, that of the tibia is enlarged. The concavity inwards, which is naturally formed by the tibia, is obliterated : and, in the more advanced stages, there may even be a pretty conspicuous convexity, so that the whole extremity more resembles a bow curved inwards than an angular bending. The knee-joint generally retains its mobility. In the higher degrees of curvature, this is indeed somewhat limited ; but either true or false anchyloses are seldom met with as consequences of the affection of the knee which has been described.

When both legs are curved, the right leg is always slightly more bent than the other, and the apices are turned towards each other. This has given rise to the German designation of the disease—X-leg *(X-bein)*.

In this affection, the patients halt in a peculiar manner. If one bone only is affected, there is lameness—(*a*) because one extremity is too short ; (*b*) because the foot of the diseased limb falls beyond the centre of gravity of the body ; (*c*) because the affected knee, in walking, both hinders the free

swinging motion of the healthy knee, and is in its turn impeded by the latter. Each of these causes has distinct results, which modify both the direction of the limb and the lameness. When the extremity is too short, there is a natural attempt to compensate the defect; and this is effected partly by the already mentioned obliquity of the pelvis, and partly by the formation of a curve in the healthy leg. In healthy individuals, who have for some time had genu valgum, there will almost always be found a slight but true contraction of the knee in the sound leg. But in children, almost without exception, the other knee will become curved, either as genu varum or valgum. The outward direction of the tibia and foot causes the peculiar up-and-down lameness to become rotatory and swinging, like mowing, and this swinging is increased, to prevent the collision of the knees during walking. In the more remarkable modification, the body seeks to maintain its equilibrium; and it attains this object more completely than in many other forms of lameness—*e.g.*, from congenital dislocation of the thigh. This is partly affected by the position of the pelvis, and partly by a greater degree of mobility in the lumbar vertebræ. The diseased leg is generally sufficiently powerful, in persons affected with genu valgum, to enable them to walk for some distance. Naumburg has compared their gait to that of ducks; but this is scarcely correct. The gait is more swinging than waddling, as in persons with rachitic distortion of the pelvis or double congenital dislocation of the hip-joint. The patient who has genu valgum in one leg, endeavours, while standing, to preserve the centre of gravity by moving the sound leg somewhat outward beyond its natural position. Hence the points of support in the feet are at a greater distance from each other, and the surface within which the centre of gravity of the body can fall is greatly increased. Patients with double genu valgum usually, when standing, support the knees against each other, so as to form there a mediate resting point for the body, while the feet stand out from each other.

Complications and Secondary Deformities. These are more various in this than in any other deformity whatever. Where the disease has commenced in youth, a curvature of the spinal column will generally be produced by the obliquity of the pelvis and the lameness. The affected limb is not unfrequently more or less atrophied. Anchylosis of the knee-joint rarely occurs, unless some chronic disease have preceded or accompanied the deformity. I have, however, seen two cases of anchylosed knock-knee in elderly persons; in these the limb was also directed backwards. But it is the feet which are especially influenced by the gait produced by genu valgum; and hence knock-kneed patients have, almost without exception, some deformity or other of the feet. The patient may, in consequence of the abduction of the tibia, tread and walk on the inner edge of the foot, which hence often becomes callous. Hence there is a disposition to flat-foot, which is the most frequent complication. But, almost as frequently, the genu valgum is complicated with club-foot; and, as the shortness of the limb leads the patient instinctively to endeavour to touch the ground with the points of his toes, it is evident that these forms will be accompanied by a greater or less degree of talipes equinus. It has been hitherto impossible to determine the reason, why these secondary deformities of the feet should in some cases assume one form, and in others another. In certain peculiar cases, the deformity of the knee is secondary. A patient in Dieffenbach's ward had had, from childhood, *cyphosis accurvata* of the lumbar vertebræ: in his youth, varus had been developed in both feet, and, in his sixteenth year, he had become knock-kneed in both legs. Not uncommonly there is genu valgum on one side, and genu varum on the other, accompanied by the same, or by distinct deformities in the feet.

Causes. There is no doubt that genu valgum may be congenital; this is, however, a rare occurrence. The causes of the development of the affection

in later years are partly external, partly internal, but most frequently both are combined. The greater convergence of the thighs in women may be supposed to be a predisposing cause ; and Lessing[1] says that this affection is more frequent in females than in males ; this is, however, incorrect, for the deformity is twenty times more frequent in the latter sex, than in the former. Scrofula and rickets may be considered as predisposing causes, especially the latter. It still more frequently produces genu varum, in which case the external condyles of the femur and tibia are most affected and enlarged, while a similar swelling of the internal condyles gives rise to genu valgum.

Genu valgum may, as a general rule, be considered as a disease of a paralytic nature, and its most usual cause as a depressed state of innervation. Hence the commencement of the affection is limited to certain periods of life, in which the nervous centres undergo a more than ordinary degree of disturbance, connected with the state of development. Genu valgum is developed either during the first dentition or during puberty. This rule is so constant, that the only exceptions are the cases in which some local malady has given rise to the deformity : but these are comparatively very rare. In children, the disease has always, in my cases, arisen between the eighth month and the completion of the second year, and has always been preceded by difficult dentition, with fever, convulsions, violent hooping-cough, or, as in one case, acute exanthematic fever. This agrees with what has been stated by Heine, with regard to nine cases of knock-knee observed by him. The external causes, which may give rise to the affection at this age, and under the circumstances which have been mentioned, are, that the children *walk* too early, or too soon after a weakening illness, while they have not yet recovered strength, or that they are constantly carried on one arm, by which one knee is pressed inwards.

Among 221 cases of genu valgum, which I have observed, 17 originated during the first dentition. In a few instances, I have not been able to ascertain the period ; but in almost all the rest, or about 200, the deformity commenced between the fifteenth and eighteenth years, or at the time of puberty. In all these cases, there was an evident external cause for the deformity—the patient's position or occupation ; but the limitation of the age referred to above, together with the fact that many following the same occupation, under apparently similar external circumstances, do not become deformed, seem to shew that the external conditions are not sufficient to produce the disease, unless they meet with a corresponding disposition in the system of the individual, or rather in his development. We correctly consider the periods of dentition and of puberty as stages of development, in which the body is more obnoxious, than at any other period, to the hurtful operation of various extrinsic or intrinsic influences. That the deformity in question less frequently arises during dentition than during puberty, may be ascribed to the fact, that the influences above referred to, are more easily resisted by the system in the former than in the latter period.

This deformity is most frequent in smiths, joiners, bakers, and grocers. In 1846, there were in Copenhagen 644 smiths, among whom were

225 blacksmiths and anchorsmiths ; of whom 42 had genu valgum in the right leg, 7 in both legs=19 per cent.

359 locksmiths ; of whom 23 had genu valgum in the right leg, and 3 in both legs=7 per cent.

30 nailsmiths ; of whom 17 had genu valgum in the right leg, and 5 in both legs=73 per cent.

There were thus, in all, 97 cases of the deformity among 644 smiths, making an average of 15 per cent.

The following are the immediate causes of the frequency of the deformity among smiths. Almost all smith's work necessitates the long maintenance

[1] Lessing. Chir. Diagnost. Berlin : 1845. pp. 593-4.

of the same position, whether at the bellows, the anvil, or the vice; and, while standing in this position they often have to use much force, which leads them to seek a firm and solid footing. The feet are hence removed from each other, either both sideways, or one—always the left—forwards. In both these positions, any powerful effort will tend to produce genu valgum; for a great part of the weight of the body will, under the powerful movements of the arm and upper part of the body, act on the knee like a pressure from above and below. In blowing bellows, a work in which apprentices are generally employed, they must often stand uninterruptedly at work for several hours. At the vice and anvil, the left foot is placed forwards, the right backwards and rotated outwards, so that the toes are turned to the side. In this position they often stand with the leg and foot unmoved for several hours, while the upper part of the body is subject to constant and violent swinging, in order to use the file or hammer. The influence of the position on the knee will be easily seen by any one who will make a trial of it. Blacksmiths and anchorsmiths are besides constantly liable to have to bear heavy burdens. The fact that nailsmiths are most liable, in spite of their work being least laborious, is explained by the circumstance that they almost constantly use a kind of vice, which is fixed near the ground, and against which they all, without exception, place the inner surfaces of both knees, "because it is impossible for them to work in any other way."

Of 1340 journeymen carpenters, about 60, or 5 per cent, had genu valgum. It has been impossible to make very accurate observations on this class, as they endeavour to conceal the deformity as well as they can. It does not reach in them so high a degree as in smiths. Notwithstanding that the work of carpenters is less laborious than that of smiths, considerable exertion is required: most of the labour of carpenters, as sawing, planing, and polishing, requires the same positions as we have described in speaking of smiths. I have also observed that carpenters carefully watch for this deformity, and endeavour to prevent its development. Many masters have told me that they have had to set free their apprentices, or, in the first year, to caution them against habituating themselves to the posture which favours the commencement of the disease.

Of 334 journeymen bakers, 27 were knock-kneed; 24 were affected in both knees, the right being generally more bent than the left. One individual had the curvature only in the right knee. In 16, deformity had not reached a very high degree. Notwithstanding that bakers seem to be affected with this malady more than the other classes above-named, and several of them have some difficulty in walking, the deformity is not strongly developed. The disease does not arise from the position in which they stand while kneading dough; for in the first years, when this malady is developed, the apprentices are not employed at this labour. But the deformity is produced by standing at night at the board, often half asleep or contending with sleep, seeking for rest in the most varied positions; or partly by carrying water or sacks of corn. It is possible also that the great changes of temperature in attending to the oven may have some influence; but I consider the night-watching as the most essential cause, for the constant struggling with sleep produces a relaxation of the muscles. All the bakers in whom I observed genu valgum, also had flat-foot; and the latter deformity, in several cases, had preceded that of the knees.

The generally received opinion, that grocers' apprentices should be liable to genu valgum, from standing long, or from shutting drawers with their knees, I have not found supported by facts: for, among two thousand individuals of this class, I have in vain sought for any examples of this deformity. It is said to have been more frequent formerly; and what has most surely contributed to its removal, is the reform in working hours, it having been formerly the custom to keep the shop open much later at night, and to open it more early in the morning.

It hence results, that the general causes of this deformity are certain positions and habits, where these are often repeated, and especially at times when the body is more susceptible of their influence than at others. Other more accidental causes are, allowing children to walk too early, carrying heavy burdens, ulcers on the inner border of the foot, a burn on the outer side of the knee, resection of the upper end of the tibia, tuberculosis in the legs, caries, necrosis, rickets, syphilis, chronic abscesses, inodular bodies, etc.

The knee-joint is, properly speaking, a ginglymoid articulation, and its essential movements are merely flexion and extension; but the hinge-like movements are not so absolutely limited as in other analogous joints. The knee possesses a slight power of pronation and supination, but only when bent; and this power is dependent on the rotation of the tibia on its long axis, being limited, when the limb is extended, by the crucial ligaments. It is not connected with any peculiar apparatus, as in the rotatory movements of the radius and ulna, and may properly be considered as a slight twisting, which becomes possible on the tolerably flat upper surface of the tibia, when the knee is in such a position that rotation is not prevented by the extensor muscles. The knee has hence no power of abduction or adduction; and therefore the motions of this joint do not help to explain a deformity, which is characterised as an abduction of the tibia. Its immediate cause must be sought for in the parts which form, hold together, and strengthen the joint.

Although the part which these structures play in the production of this deformity is for the most part passive, the biceps femoris seems to be active in those positions in which genu valgum is chiefly produced, and to exercise the greatest influence on the increase, if not on the origin, of the deformity.

Supposing that one of the external influences which have been referred to should steadily act on the knee-joint, at a time when either convulsive disease (first dentition) or an unequally powerful development, perhaps in connexion with a rapid slender growth (puberty), have weakened the nervous system; then the parts on the inner side of the knee have no power of opposing the pressure outwards. They are overstretched and slackened; and thus the conditions arise for the commencement of genu valgum. The most important relaxation takes place in the internal lateral ligament, which is lengthened and thinned in its whole extent: in the more advanced stages, the four tendons on the inner side of the knee are also lengthened. On the other side of the knee, the tendon of the biceps, and both the external lateral ligaments, as well as the posterior, are strongly stretched.

When the deformity commences, the angle at which the biceps femoris acts constantly becomes more and more favourable to its increase. This is, however, still more favoured by the circumstance, that the weight of the body, which in the normal state is uniformly diffused over the upper surface of the tibia, is now transferred to the upper surface of the outer condyle of that bone. The inner condyle of the tibia, and that of the femur to some extent, are atrophied, even in cases which are not of rachitic origin. This hypertrophy is greater, in proportion to the youth or small size of the patient at the time when the deformity commenced. In rachitic cases, it sometimes attains an enormous degree. It is probable, also, that the internal semilunar cartilage is somewhat atrophied.

Prognosis. As genu valgum is a deformity which depends rather on relaxation than on any active contraction, the prognosis in general may be considered as scarcely favourable. It is, however, curable, when it comes under treatment in an early stage, and, which is more important, when the circumstances which have produced and kept it up can be removed. In young children, the knee can be brought with the hand into its normal situation; and in these the prognosis is most frequently good, when the necessary continued watching of the growth can be maintained, and when

the general condition of the child does not give a tendency to the continuance of the disorder, or to relapses. In young men, also, the deformity can be cured, when there are as yet no consecutive changes. But, under all circumstances, the removal of the deformity must not be looked on as complete; for, even when the curvature is completely removed, it will still be necessary to employ fitting means, to ensure the result desired.

Treatment. The treatment of genu valgum in young children, consists in mechanical means to keep the knee outwards; and this must be always supported by such general treatment, as the constitution of the child may indicate. The most simple apparatus is a splint, either straight or convex outwards, reaching from the hip-joint over the outer ankle, and fastened at the ends with circular bands. This apparatus, however, hinders the child from walking, and therefore can only be used constantly at night: hence it can only be used in the more unimportant cases. It is preferable to make use of a steel spring, convex outwards, furnished at the height of the knee with a hinge, fastened at the hip to a bow which can be stretched round the pelvis; just over the outer ankle, the lower end of the spring passes into another bow, which can be fastened round the tibia. The spring is furnished on the outside, through its whole length, with buttons, on which are fastened small leather straps, four or six in number. These are brought round the legs; and on the inner side of the knee they glide between flat *pelottes* which exert a pressure from within outwards, when the straps are stretched or buttoned. An apparatus of this kind may be worn for a long time, and its action gradually increased. It must be used for at least a year after the deformity is removed, and even then it must be gradually ascertained whether it can be left off.

The same apparatus, on a larger scale, and with greater strength of spring, can be used in grown persons. The patient can easily accustom himself to use it—indeed, he feels comfortable with it. In grown persons, it will generally be an indication, before employing mechanical treatment, to divide the tendon of the biceps, or of the most stretched fibres of the lateral ligaments, but generally only of the posterior lateral ligament. The mechanical treatment, after tenotomy, may appear tedious; but the result will be more perfect: but without great perseverance on the part of the patient, and careful watching of the deformity for several years, the treatment of genu valgum will in general be ineffectual.

CHRONIC OPHTHALMIA AND SPECKS ON THE CORNEA; THEIR TREATMENT BY SULPHATE OF CADMIUM AND TANNIN.

Fronmüller is in the habit of using, with great success, sulphate of cadmium, according to the subjoined formula:

Take of sulphate of cadmium, 20 centigrammes; distilled water of roses, 45 centigrammes; Sydenham's laudanum, from 2 to 6 grammes.

This collyrium is to be dropped into the eye.

Tannin is employed by Fronmüller in specks of the cornea, both in the form of collyrium and of ointment. The *ointment* is thus composed:

Take of tannin, from 40 to 60 centigrammes; prepared lead, 8 grammes. Make them into an ointment.

The *collyrium* is thus prepared:

Take of tannin, from 30 to 60 centigrammes; distilled water, 60 grammes; laudanum of Rousseau, from 2 to 4 grammes.

This formula is stated to be—though unchemical—very useful in chronic ophthalmia of an indolent character. The bottle requires to be kept well stopped. The tannin is a milder astringent, according to Fronmüller, than the mineral substances commonly employed in collyria. It produces a very powerfully astringent effect upon the vascular tissues. [*Annales d'Oculistique.*] The readers of the London Journal of Medicine may remember

that it was mentioned, at p. 1070 of our volume for 1850, that Dr. Cummings considers tannin superior to all other articles of the Materia Medica for astringent collyria, especially in purulent ophthalmia. The opinion of M. Hairion of Louvain of its great utility in similar affections was reported at p. 268 of the current volume.

SEPARATION OF WEB-FINGERS.

M. Pauli recommends the following method, in the *Medicinisches Corresp.-Blatt Bayerischer Aerzte.* The intermediate membrane is divided with a bistoury or scissors, close to one of the fingers, and in the whole length of the finger, till a little beyond the abnormal junction; the two fingers being at the same time forcibly separated by an assistant. In this way, enough of skin is left to cover one of the fingers; and the wound, being put up with agglutinative bandages, heals by the first intention. As to the wound of the other finger, it is covered with charpie, and treated so as to heal by granulation. As the whole of the wound of one finger is closed by skin, reunion of the fingers is impossible. The author states that, in several instances, he has successfully adopted the method now described.

CASES OF DOUBLE VISION AND STRABISMUS; CAUTERISATION WITH THE NITRATE OF SILVER.

Dr. K. A. Hille reports the following cases in *Ammon and Walther's Journal;* and we quote them from the *Journal des Connais. Médico-Chirurgicale* of the 17th April, 1851. They bear a strong resemblance to cases published by M. Deval in the latter periodical, for 10th Nov. 1850, in a paper entitled "*On Cauterisation of the Sclerotic Conjunctiva in some cases of Paralytic Strabismus.*"

Case I. A man, aged 28, was admitted on the 27th October, for the cure of double vision, and a chronic inflammation of the right eye, which Dr. Hille regarded as rheumatic. The latter affection readily yielded to diaphoretics, and slightly irritant treatment. There remained the diplopsia, and a slight squint. Aware of Dieffenbach's favourable opinion of the nitrate of silver as an heroic remedy in certain cases of passive strabismus, Dr. Hille resolved to try cauterisation with it, as a remedy for both affections. He operated on the 1st November. The patient being seated, and his upper eyelid fixed by an assistant, he was directed to look at the root of his nose; the solid nitrate of silver was then applied to the conjunctiva, at the external angle of the right eye, above the rectus externus muscle. The patient left the hospital entirely cured.

Case II. A patient suffering from venous cardialgia (?) applied to Dr. Hille during the following year. She had likewise convergent passive strabismus of the right eye. The globe of the eye being turned upwards, and towards the internal angle, the cauterisation was made between the rectus internus and rectus inferior muscles. Some inflammatory symptoms followed the operation; but, at the end of three weeks, the patient left the hospital, as radically cured as the other, whose case was above detailed.

TREATMENT OF GONORRHŒA AND SYPHILIS IN NEW YORK.

In the Report of the Venereal Hospital attached to the New York Penitentiary, we find the following remarks:

The Croton water has recently been introduced into the hospital, and Dr. Kelly has availed himself of this extensively in the treatment of blennorrhagia, uterine diseases, and many cases of primary syphilis. In the water closets of each ward, a hose with a stop-cock and vaginal syringe termination has been attached to the water pipe, and a convenient seat, with a pipe for

the waste water, fitted up. On this seat each of the aforesaid patients place themselves daily or oftener, and introducing the hose, enjoy a most thorough irrigation and purification of the parts. The doctor sanguinely anticipates much good, both moral and physical, from this addendum to his plan of treatment.

The *Iodide of Potassium* is administered only in a few forms of constitutional syphilis, but in many of these it is given in large doses. From two to six drachms daily is not unusual. Opium, iron, and good living, are considered indispensable in the treatment of almost every form of constitutional syphilis. [*New York Register of Medicine and Pharmacy*, 1 June, 1851.]

OBSTETRICS.

CASES OF IMPERFORATE VAGINA AND OS UTERI.

Two interesting cases of imperforate vagina and uterus have recently been recorded in the *Gazette Médicale:* one by Dr. Debrou of Orleans, in the numbers for January 18 and 25; the other by M. Armand Trumet, in the number for May 31, 1851.

Abstract of Case recorded by Dr. Debrou. *Summary.* Complete Congenital Obliteration of the Vagina, with Imperforate Cervix Uteri: Formation of a Vaginal Canal and Uterine Orifice: Marriage: Pregnancy: Delivery at the Full Period: Convulsions: Application of Forceps: Child Dead; Metro-Peritonitis: Death on the Tenth Day. In the beginning of 1847, Dr. Debrou was consulted by L., a girl nineteen years old, who had, since she was seventeen, suffered monthly from menstrual pains, without any catamenial flow. For three months before she consulted Dr. Debrou, the pains had become very severe, and lasted for several days each time; and, in the intervals, instead of regaining her health, she had lost sleep and appetite, and become very thin. Her abdomen had also become enlarged. On examination, an oval tumour, of the size of a hen's egg, painful on touch, and slightly moveable, was discovered on the right side. In the hypogastrium there was a more extensive tumour, reaching from the pubes to two finger-breadths below the umbilicus: it was regularly rounded, slightly painful, and firm, but somewhat elastic. Between the nymphæ, clitoris, and frænum, there was a slight depression, without an aperture, in the situation of the orifice of the vagina. On examination, with the finger introduced into the rectum, and a female catheter in the bladder, these organs were found to be separated by an interval of three or four lines, formed of a firm material.

Dr. Debrou hence concluded: 1. That the hypogastric tumour consisted of the uterus distended with menstrual fluid. 2. That the small moveable tumour at the side of the other, in the right flank, was the ovary or Fallopian tube similarly distended, and perhaps ready to burst into the peritoneal cavity. 3. That the vagina was almost or entirely absent, being replaced by a fibrous tissue. 4. That, in order to rescue the patient from inevitable death, the fibrous tissue between the vulva and cervix uteri must be divided by an operation.

On February 22, 1847, the operation was performed by Dr. Debrou and M. Vallet of Orleans. The patient was placed on the edge of a bed, with her thighs separated, as in the operation of lithotrity. The bladder was first emptied. The right index finger having been placed in the rectum, Dr. Debrou penetrated with a bistoury the centre of the space between the frænum and urethra. He gradually divided the resistant fibrous tissue to the depth of about an inch, and then tried to complete the operation by tearing with his finger nail or the handle of the bistoury. He was obliged, however, to divide the tissue with the point of the instrument for an inch deeper, and he then felt with his finger a solid round body at the bottom of

the wound. With his nail and a large director he exposed this projection, which was situated two and a half inches from the vulva. Little blood escaped. On exploration *per rectum*, the projection felt was discovered to be a portion of the uterus—probably the neck. As the os uteri could not be in any way discovered, Dr. Debrou made an incision with a bistoury, and afterwards introduced a female catheter: a little blood escaped. The opening was still further enlarged by a bistoury guided on a director, and gave exit to a large quantity of semi-coagulated blood, like thick chocolate. A portion of it presented a redder colour the next day, and coagulated; yielding, however, very little serum. On introducing the index finger into the uterus, this organ was found to form a large cavity, with very smooth walls. By placing one finger in the uterus and another in the rectum, the walls of the former were found to be very thin. Dr. Debrou thinks that this shows that *the uterus, when mechanically distended by an accumulation of the menstrual fluid, does not become thickened*, as it does when filled with the products of conception.

The subsequent treatment consisted in keeping the orifice dilated by means of a sound and charpie, and sometimes by a sponge placed in the vagina. On May 4, 5, and 6, the menses flowed in abundance. They were absent, however, in June and the following months; and in March 1848, the uterus was again distended. Dr. Debrou, having in the meantime succeeded in dilating the vagina by charpie, sponge-tents, etc., made another orifice in the uterus, which he carefully kept dilated. The catamenia were absent in April, but they appeared in May and each subsequent month, with the usual symptoms: and the patient became quite well.

In February 1849, the patient married. Dr. Debrou examined her on the 24th of that month. She presented *embonpoint*, and her breasts were well developed. There had been no irregularity in menstruation; and her health was excellent. A small quantity of mucous fluid exuded from the vulva. The vagina was nearly three inches in length, and easily admitted two fingers; its walls were soft, supple, and lined by a covering analogous to a mucous membrane. At the extremity, the uterus could be felt, and a round aperture, with hard borders, which easily received the end of a female catheter. The cervix uteri could not be recognised. The bottom of the vagina, which was somewhat narrower than the rest, was attached round the orifice of the uterus. The abdomen was firm, and gave a clear sound on percussion, as far as the pubes: there were no signs of either of the tumours above described. The pelvis was well formed.

She had been married on February 12, and became pregnant very soon after. Dr. Debrou saw her at the end of April, when she had been pregnant above three months: the catamenia had not appeared since her pregnancy.

Nothing very remarkable occurred during gestation: she had an attack of diarrhœa in August, which lasted for three months, and much weakened her. Delivery took place on November 2, two hundred and sixty-two days after marriage. The pains commenced at five in the morning, and Dr. Debrou visited her at noon. The uterus then presented an aperture of the extent of a centimètre, through which a little liquor amnii had escaped. The head could be felt; it had descended into the pelvis. The pains came on regularly every three or four minutes, and all seemed going on favourably.

At one p.m., the opening was of the size of a franc piece, so that Dr. Debrou could introduce his finger. The tissue round the orifice was firm and tense, although thin; and Dr. Debrou divided it at the sides by means of a probe-pointed bistoury guided on his finger. Dilatation did not become much more rapid; and at two o'clock, the orifice was as large as a two-franc piece. The pains were still frequent, and strong. Dr. Debrou made more incisions, but not quite so extensive as before: he could now pass his finger between the head of the fœtus and the walls of the uterus. At five p.m., the orifice was dilated to the extent of a six-livre piece, and the scalp of the

child projected into the vagina. The pains were more continuous, but less effectual; and the patient began to lose courage. She had frequently taken broth since Dr. Debrou's arrival.

At a quarter to six, the patient complained of severe pain in the head, and immediately had an attack of convulsions. Dr. Debrou took about two ounces of blood from the arm. The patient came to herself in about three minutes, and complained of pain in the epigastrium and head. A sinapism was applied to the region of the stomach. In about a quarter of an hour, another attack of convulsions occurred. Dr. Debrou, as soon as it was over, applied the forceps without difficulty, and extracted a still-born female child, which could not be reanimated. It had probably died during the attack of convulsions in the mother.

November 3. The patient had slept well. The uterus reached as high as the umbilicus, and was slightly tender on pressure. The perinæum had been torn for about an inch ; but rather more than an inch remained sound in front of the anus. The recto-vaginal septum was uninjured. A poultice was applied to the abdomen.

November 4. The hypogastrium was tender ; and the lochial discharge was diminished. The pulse was 120. Twenty leeches were applied to the hypogastrium. After this, the patient got better for some days.

November 7. At six p.m. she was attacked with colicky pains, without evident cause. They continued through the night : but Dr. Debrou was not sent for.

November 8. Dr. Debrou visited her at noon, and found her flushed ; pulse 135, full and tense. The lochia were suppressed. The abdomen was tense, inflated, and painful everywhere. The uterus reached above the umbilicus—having been two finger-breadths below it on the proceeding morning. The urine had to be drawn off by the catheter. There had been no rigors. Twenty-four leeches were applied to the abdomen. The subsequent treatment consisted chiefly in the application of mercurial ointment and cataplasms to the abdomen. The patient continued much in the same state : and died on November 11, at one o'clock in the morning. An autopsy was not permitted.

Two questions are suggested by a consideration of this case :

I. Is it proper to operate on girls arrived at puberty, who have complete obliteration of the vagina, with imperforate uterus ?

II. If the operation succeeds, can marriage be permitted, with the hope of a successful delivery ? The last of these questions is first treated of, as being most interesting.

I. THE OPERATION FOR IMPERFORATE VAGINA AND UTERUS HAVING BEEN SUCCESSFUL, CAN MARRIAGE BE PERMITTED, WITH THE HOPE OF A FAVOURABLE DELIVERY ? M. Amusat recorded, in the *Gazette Médicale* for 1835, pp. 785 and 817, a case in which he had operated for congenital absence of the vagina. He pronounced in favour of marriage ; but there were no facts by which to prove the correctness of his opinion. Dr. Kluyskens also related a case in the *Annales et Bulletin de la Société de Médecine de Gand*, July 1845. The patient married ; but did not become pregnant. Dr. Debrou hence considers that his case is the only one which throws light on the above question.

The ready manner in which conception took place, and the regularity of the pregnancy, appear remarkable : I. Because the long retention of the menstrual fluid, and the operations required to liberate it, might be supposed to unfit the uterus for the development of a fœtus ; and II. Because the tumour formed by the ovary or Fallopian tube on the right side might be imagined to interfere with fecundation.

In the accouchement, there were three circumstances worthy of note : the

difficult dilatation of the uterine orifice, the convulsions, and the application of the forceps.

In ordinary circumstances, it may be easy enough to make incisions in the os uteri: but this becomes very difficult when the vagina is not of its natural size, and especially when the uterus does not project into the vagina. Hence the incisions made by Dr. Debrou did not produce the full effect which he desired; and from this cause, and the resistance of the orifice, resulted the tardiness of labour, and the long duration of the pains, which, having but little effect, were, he thinks, the principal cause of the convulsions. The forceps he would not have applied unless under pressing necessity: and the escape of the perinæum and recto-vaginal septum from any injury of importance were fortunate results, which he scarcely expected.

The metro-peritonitis could not be attributed to the length of the labour, which lasted thirteen hours. Could the combination of the incisions, the convulsions, and the application of the forceps, have produced the fatal affection? Dr. Debrou does not attempt to give a decided answer to this question; but believes it his duty merely to relate the facts, and leaves others to form their own opinions.

The following are the conclusions at which he arrives.

It was proper to advise the patient to marry. If she had been stronger, and not weakened by diarrhœa lasting for three months, she might have been delivered without the aid of the forceps. The convulsions were doubtless attributable to the resistance of the uterine orifice, and were the cause of the death of the infant: but they form no argument against marriage. The metro-peritonitis was not necessarily connected with the manner in which delivery took place, nor with the peculiar condition of the genital organs: but it was produced in the same way as in other women. If the patient had recovered, she might have again become pregnant, and have had a favourable delivery. With regard to the induction of abortion at the seventh or eighth month, this would not, in Dr. Debrou's opinion, be necessary. He believes that, *if another woman should become pregnant, after the formation of a vagina and uterine orifice by operation, she might be delivered without sacrificing her life, or that of the child.*

II. Is it proper to operate on females arrived at puberty, who have complete obliteration of the vagina, with imperforate uterus? Dr. Debrou objects to the term, *absence of the vagina*, which is frequently applied to cases of imperforation, as not sufficiently precise. He would use the term *imperforation* to express generally the absence of an external aperture, employing the term *occlusion* to denote that variety where there is merely imperforate hymen; *obliteration*, perfect or imperfect, where the situation of the vagina is more or less occupied by fibrous tissue; and *absence*, when there is no interval between the rectum behind, and the bladder and urethra in front. Of the latter variety, he believes there is only one case—that of M. Amussat, already mentioned—which has been operated on. These distinctions are useful, as the danger and difficulty of operation increase from the first towards the last; yet operations in each form have been successful.

The motive which should lead the surgeon to operate, is the danger of the inevitably fatal result to the patient, if she is not relieved from the accumulation of the menstrual fluid. We must not, however, follow the example of Stoltz, who formed an artificial vagina in a female who had no uterus: the operation has sometimes proved fatal, even in able hands, and can only be justified by necessity.

An important sign *is the presence of an ovoid tumour, slightly capable of rotation, distinct from the uterus, and situate at its side in one of the flanks.* In Dr. Debrou's case, he feared that it might burst into the peritoneum. M. Amussat also noticed this tumour in his case; and says that it opened

into the rectum, and gave exit to large quantities of blood, similar to that which escaped from the uterus. The bursting of this ovarian or tubal sac produced severe symptoms: and this should form an additional reason for speedily operating when it is perceived.

The operation for forming an artificial opening in the uterus, has been objected to by Sabatier-Dupuytren,[1] Bégin,[2] and Pigné,[3] on the ground of its being likely to produce metritis. Yet the operation is not necessarily attended with danger; and Barré,[4] Hervez de Chégoin,[5] Wattmann,[6] and Delpech,[7] as well as Dr. Debrou, have performed it without any such bad effects. Dr. Debrou believes, that if the opinion attributed to Dupuytren be fairly examined, he will be found to refer to those cases, where it has been necessary to operate also on an obliterated vagina. It is this, almost entirely, which constitutes the severity of the operation.

Dr. Debrou next offers some remarks on the fact, that he was obliged to make an opening into the uterus a second time.

Excluding those cases in which the os uteri has become closed in pregnant females after conception, and in which it has been necessary to make an artificial opening to render delivery possible, he finds nine cases recorded which throw light on this subject. These he divides into two categories. In the first, including four cases, those of Barré, Hervez de Chégoin, Wattmann, and Delpech, the vagina was of ordinary conformation. In the second, the vagina was more or less obliterated, or even entirely absent. This category includes five cases: one by William de Metz;[8] one by Desgranges;[9] Amussat's case; one by Dr. de Bal; and one by Dr. Kluyskens;[10] Dr. Debrou's case makes a sixth.

Two questions have to be considered: How long should a foreign body be left in the wound? What means have been used for opening the uterus?

All who have operated, except Delpech and Desgranges, have used a foreign body to prevent cicatrisation of the orifice. M. Hervez de Chégoin first introduced a gum elastic sound, and on the third day, a female catheter, which he kept in nearly two months. Dr. Barré introduced a large gum elastic sound, which he kept in only fifteen days, even taking it out several times on account of the pain which it produced. M. Delpech left the case to nature; the orifice is said to have remained open, and the menses to have flowed for two periods, after which he lost sight of the patient. Wattmann introduced a leaden canula: it is not stated how long it was retained, but his patient seems to have been cured. William de Metz introduced a plug of charpie; and says that "in a month, the patient was cured"; hence probably it was not kept in beyond that time. M. Amussat employed sounds for forty-four days, gradually increasing their size; and several times was obliged to suspend their use, on account of the pain occasioned, and because the patient was attacked with peritonitis. Desgranges merely introduced charpie between the *labia majora* and the vagina: but it appears probable that his case was not one of congenital imperforation, but of incomplete obliteration of the vagina and occlusion of the os uteri, resulting from

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[1] Sabatier-Dupuytren, tom. iv, p. 555.

[2] Bégin, M. Nouveaux élémens de Chirurgie. 2nd Ed., tom. i, p. 445.

[3] Chélius, M. Traité de Chirurgie, traduit et annoté, par Pigné, tom. ii, p. 62.

[4] Case related by M. Dance in *Archives Générales de Médecine*, tom. xx, 1me serie, p. 530.

[5] Hervez de Chégoin, M.; communicated to the Academie de Médecine, 23rd November, 1829.

[6] Wattmann, M. Gazette Médicale, 1841, p. 632; from a German Journal.

[7] Delpech, M. Mémor. des Hôpitaux du Midi, tome ii, p. 147.

[8] Related by M. Amussat, *Gazette Médicale*, 1835, pp. 785, and 817.

[9] Desgranges, M. Mémorial des Hôpitaux du Midi, tome ii, p. 479.

[10] De Bal, Dr., and Kluyskens, Dr. Annales et Bulletin de la Société de Médecine de Gand, July 1845.

syphilitic vegetations and from adhesions following chancres. Dr. de Bal used a gum-elastic sound ; but for how long, he does not say ; he merely mentions that the vagina was very small and undilatable. Dr. Kluyskens introduced from time to time a gum elastic canula ; the cure was complete at the end of five weeks. Dr. Debrou at first used charpie, then a No. 8 gum elastic sound for thirty-four days, occasionally suspending its use towards the termination.

The instrument employed to make an opening in the uterus has been generally a trocar, a pharyngotome, or some analogous instrument. Three surgeons only—M. Amussat, Dr. Kluyskens, and Dr. Debrou—used a bistoury ; but they also enlarged the aperture, so that, in Dr. Debrou's case, he could introduce the finger into the uterus.

It hence appears, that neither the method of making the opening, nor of maintaining it, had much effect on the result ; which was persistance of the orifice, in every case except that of M. Debrou. His failure, he says, must be explained in some other way. We must take into consideration the coexistence of occlusion of the uterus, and complete obliteration of the vagina ; the difficulty of keeping open the orifice at the bottom of the newly formed canal, which itself has a tendency to close, especially at its upper part ; and the great importance of restoring the vagina to its natural dimensions—even greater than keeping open the uterine orifice. Most of those who have operated, have been content with making the vagina merely large enough to allow the escape of the menstrual fluid.

Sometimes the vagina is not obliterated at the upper part, and this will diminish the difficulty ; for it is the upper part of the vagina which especially tends to contract, and to narrow the new uterine orifice.

Dr. Debrou believes that he arrived at a more complete result than the other operators, and sums up his remarks as follows : " In the first place, the efforts of the surgeon should be directed rather to the restoration of the vagina than to the establishment of the uterine orifice ; because the first object is the more difficult, and much more important. Even though my case has only the merit of shewing the difficulties in the way of forming a vagina of sufficient dimensions, I believe that it will still be useful. In my opinion, this point is more important than the other, because, when life is assured by evacuating the uterus, if the orifice made cannot be easily maintained, on account of the contraction of the vaginal canal, it may be left alone until the vagina is restored. When this is once effected, a new incision in the uterus will not be attended by danger, and may easily be rendered permanent."

II. Case related by M. Trumet. *Summary.* Malformation of the Uterus and its Neck : Retention of Menses : Operation : Quinsy : Peritonitis : Death : Necropsy. A countrywoman, aged 23, was admitted on April 27, 1850, into the Hôtel-Dieu, under M. Jobert de Lamballe. She had been married ten months. Menstrual pains commenced at the age of fifteen, and occurred regularly every month ; but no discharge took place. When she was twenty-one, an operation was attempted ; but the only account she could give was, that the surgeon made incisions with a sharp instrument, and then placed pieces of charpie in the vagina. This was repeated three times, but still the menstrual fluid did not appear. The same surgeon subsequently advised marriage, assuring her that it would cure her. She therefore married in July 1849, and menstruated, for the first time, four months afterwards, and again two months before her admission into hospital. M. Landouzy operated on her in September 1849, " by raising a flap of the tissue in some part of the genital canal, and leaving there an instrument for three weeks ; after which he withdrew the instrument, and did nothing more."

On admission, she was of a good figure, slightly coloured, without any

expression of suffering. Her health was good, except during the menstrual periods. She then had severe pains in the whole abdomen, radiating to the groins, loins, and thighs, constipation, loss of appetite, general *malaise*, fever, and even vomiting. In the intervals, the abdomen was supple and painless almost in its entire extent, but was tender on pressure in the hypogastric region. There was in this situation a swelling in the pelvis, rising slightly above the brim, and probably formed of the body of the uterus. There was no pain on pressure in the iliac fossæ, and nothing could be felt there. The external aspect of the vulva was normal. The vagina was narrow and shallow, and terminated in a cul-de-sac, presenting some cicatrices, probably the results of the former operations. The cervix uteri did not project into the vagina ; in its place there was a hard firm tissue, not painful on pressure. On examining *per rectum*, the tumour lying behind the pubes could be felt in front of the intestine. There was nothing remarkable in the urinary or other functions ; except that the stools were difficult during the monthly uterine congestions. Since the last menstruation, she had had pain, first in the right thigh, and then in the left lower limb.

May 10. M. Jobert operated on her. She was placed on a table in the position for lithotomy ; and chloroform was administered. The vagina was held open, and the recto-vaginal septum was held down by an univalve speculum. M. Jobert then introduced a large trocar into the part corresponding to the neck of the uterus. Nothing appeared at first ; but in a little time there escaped from the canula one or two spoonfuls of thick, dark, pitchy blood, just like that which is found in the vessels of cholera patients, or rather like treacle. When this had ceased flowing, M. Jobert enlarged the opening with a bistoury and scissors. He then fastened the edges of the opening which he had made to the vaginal mucous membrane, by interrupted sutures, and then introduced a large gum-elastic sound. For some days, some of the same kind of blood continued to escape. The patient appeared to do well till May 17, when she had a rigor ; symptoms of peritonitis appeared the next day, and quinsy on the 26th ; and she died on the 31st.

Necropsy. False membranes were found in the peritoneum and on the pharynx. The uterine appendages were involved in the inflammatory exudations, and could not be recognised. The uterus was larger than in the normal state. It, with the vagina, was divided in the median line, and presented :

1. A highly developed fibrous texture.

2. A small round circumscribed cavity, of the size of a Provence nut, hollowed in the body of the uterus, in its tissue ; this cavity contained several clots of blood, and had no communication with another cavity, which will be presently described in the interior of the neck.

3. The neck of the uterus was of normal length and appearance, but was imperforate above, and had no communication with the uterine cavity : it was entirely surrounded by the vagina. The neck contained a cavity, elongated from above downwards, and having no communication whatever either with the cavity in the uterus, or, before the operation was performed, with the vagina. This alone can have been reached by the trocar. The peritoneum had not been wounded by the instrument.

CASE OF CATHETERISM OF THE FALLOPIAN TUBES; CONSEQUENT REMOVAL OF AN OVARIAN TUMOUR, PER VIAS NATURALES.

Dr. S. A. Cartwright reports a very strange case, which we give in an abridged form from a New Orleans Journal, as quoted in the *Boston Medical and Surgical Journal* for May 21, 1851, p. 318. We are surprised to observe that he does not allude to what Dr. Tyler Smith has written on catheterism of the Fallopian tubes. [*Vide* London Journal of Medicine, vol. for 1849, pp. 590, 676, 1068.] To apply a strong solution of nitrate of silver to the

inside of the Fallopian tubes, is certainly a step in advance of Dr. Tyler Smith!

Case. On the 10th March, 1850, Dr. Cartwright sent for Dr. Warren Stone to consult with him as to the removal of "a large and hard ovarian tumour from" a small, delicately-formed lady, aged 19, of sanguine temperament, and scrofulous constitution. When Dr. C. told the patient that it would require an incision two feet long for the extirpation of so large a tumour, she replied, that "she did not care if it were three feet, as she had rather die than live to suffer as she did". The lady had been married two years. She was pale; and looked as large as a woman in the ninth month of pregnancy. The tumour had been growing from her earliest recollection; but it had not been so large as to incommode her much till after her marriage. Treatment by iodine, etc., had been of no avail.

On the 18th of March, an examination by the speculum was made. The mucous surfaces were pale: there were neither leucorrhœal discharge, nor inflammation, nor congestion. A very small gum-elastic catheter, with a wire in it, after repeated efforts, was introduced into the uterine cavity. The passage of the catheter through the coarctation, called the os internum, gave some pain, and caused a faintish sick sensation. The small catheter was withdrawn, and a larger sized instrument was passed, with some difficulty, through the cavity of the cervix into the uterus. It penetrated about two inches: on being withdrawn, a little blood as usual followed. Dr. Cartwright now resolved to try catheterism of the left Fallopian tube. The catheter containing a wire was flexed like the male catheter, and passed through the fusiform cavity of the neck, into the triangular cavity of the uterus itself: the wire was withdrawn about half an inch, so as to make the point of the instrument more flexible, and was carried forward in the direction of the *ostium uterinum* of the left Fallopian tube. It entered the tube after a few trials, and after penetrating about an inch, it seemed to enter a cavity or expansion of the tube itself: it was pushed forward about an inch and a half more, seeming in its passage to encounter a soft yielding substance: it was then withdrawn, when a gelatinous substance followed, which was recognised to be a hydatid formation. The same catheter, with a very tapering point, was dipped into a solution of nitrate of silver (a drachm to the ounce of water). Several minims of the solution were drawn into it, by working the wire in the calibre of the instrument; it was then passed through the uterine cavity into the Fallopian tube, until it had penetrated the tube three inches, when it was moved about in the cavity of the tube, and the wire moved so as to eject the caustic solution through the eyes of the catheter, among the hydatid cysts that the instrument had reached. On withdrawing it, a semi-membranous, tenacious substance, with dark specks interspersed through it, not unlike frog-spawn, presented itself at the mouth of the uterus, seeking an exit, but too thick and glutinous to pass freely. Finding it too soft and yielding to be drawn away with the forceps, a little raw cotton was passed around a probe, so as to entangle the viscid substance, and by turning the probe, the stringy matter was wound around it, and pulled out of the uterus in long mucilaginous ropes. The supply seemed to be inexhaustible. The patient being much fatigued, the operation of drawing away the hydatids was at length suspended; nevertheless they continued to come away, *per vias naturales*, for a week or more. In the meantime, the tumour was reduced to less than half its former size, and grew softer and less painful. The "catheterism of the Fallopian tube" (?), *with the catheter filled with a strong solution of nitrate of silver*, was repeated on the 3rd of April, the 1st, 7th, and 13th of May. At the last operation, no more hydatids or viscid fluid were brought away; but at all the other operations, they were; and they continued to pass off for a week, or more, after each catheterism.

The day after the last operation, the patient left town for the sea-shore;

her health had begun to improve rapidly, her pains were gone, and her abdomen was reduced to near its natural size. While absent, her health appeared to be entirely reinstated.

Last autumn she returned to the city, quite well, though some fulness and hardness could still be felt in the hypogastric region, the effects of the former adhesions. Her general health improved during the winter, and she was enabled to dance, waltz, and walk about town as actively as almost any other woman. Although she suffers somewhat from painful distension in the abdominal and pelvic regions during her menstrual periods, and is dyspeptic and flatulent at such times, yet, when that is over, her form is quite sylph-like. The leucophlegmasia is giving way to the rosy hue proper to her original sanguine temperament.

Dr. Cartwright concludes his paper with the subjoined paragraph; we hope that he may yet tell us how he knows that he *did not* MAKE *a passage with his catheter*, in place of pushing that instrument up the cavity of the Fallopian tube?

"As this is the first case of ovarian tumour, as far as I know, which has been treated by catheterism of the Fallopian tubes, I have thought proper to report it. I do not consider the operation as always a difficult one, because, when the ovaries are in a morbid state, the Fallopian tubes are, in general, much more easily catheterised than in the healthy condition. I doubt its practicability in a state of health; possibly it might be effected during the catamenial period. The same important practical law obtains in regard to the uterus itself, it being generally easier to probe when in a morbid state. I have succeeded in curing some cases of dysmenorrhœa and sterility by catheterism of the Fallopian tubes, selecting the proper time for the operation; but, as its virtues in this respect are already known to the profession, it is unnecessary to dwell upon the subject, farther than to say, that New Orleans can show some as unquestionable evidences of its efficacy in sterility as London."

DR. JOHN APPLETON ON PUERPERAL ANÆMIA.

We abridge the following from the *Boston Medical and Surgical Journal* for February 19, 1851.

CASE. Mrs. E., aged 26, had for two years previous to the period at which DR. APPLETON was first consulted, suffered with "dyspepsia". She first came under his care in January 1849, being then in the seventh month of her first pregnancy. She complained of dyspeptic symptoms, with obstinate constipation. The tongue was coated; the pulse slightly accelerated. The more urgent symptoms yielded to the use of aperients, with the subnitrate of bismuth and extract of henbane.

She was next seen by him on the day of her accouchement, which took place on the 8th of March. About a fortnight before, she had taken a severe cold, producing catarrhal cough, attended with considerable fever; not sufficient, however, to induce her to call any medical aid. The labour was natural, and easily terminated. The hæmorrhage, although free, was not remarkably copious; and the first few days after delivery were unattended with any unpleasant symptoms, except the cough and daily exacerbations of fever.

After the first week, her strength declined, and any attempt to assume the erect posture produced faintness. Her pulse varied from 104 to 120. The mucous expectoration was not profuse. Dyspnœa was occasionally urgent, although the patient was generally able to lie down. Headache, with intolerance of light and sound, frequent sighing, and extreme despondency, alternately with a high degree of excitement, now appeared. Epistaxis had occurred once or twice in the early period of her confinement.

She was visited by Dr. Longley, of Haverhill, in consultation, on the

eighth day after delivery; the bronchial inflammation and febrile excitement were the most prominent marks of disease. Percussion and auscultation gave no signs of organic disease, or of effusion into the thoracic cavities.

During the succeeding week, the heat of the surface subsided; the tongue, which had been coated, became clean; the appetite improved; there was an abatement of the cough, and a slight increase of muscular strength. The improvement, however, was but temporary. The prostration again became extreme; the pulse continued frequent, while it diminished in strength; the stomach became more irritable, rejecting both medicine and nutriment. The pallor of the face, which had for a few days been less remarkable, assumed more of the waxy, bloodless appearance, peculiar to the disease; the lips, tongue, and mucous membrane of the mouth, became pale; and she finally sank, on the 31st of March, twenty-three days after delivery.

Examination of the Body, Sixty Hours after Death. There was much fat in the subcutaneous cellular tissue, and also about the heart and abdominal viscera. The external muscles were somewhat coloured, but scarcely any blood followed the scalpel. The cartilages of the ribs were much ossified. There were some small petechial spots on the surface.

Thorax. The lungs crepitated perfectly in every part; their colour externally was a very light gray. There were no adhesions to the costal pleura. The cavity of right thorax contained 1½ pint of straw-coloured serum; the left nearly 1 pint. There was a solitary tuberculous deposit in the right lung. The pericardium contained more than ℥xiv of serum. The heart was large, flabby, and loaded with fat: its muscular texture was extremely pale, soft, easily torn, and resembling sodden meat. A small quantity of pale, watery blood, was found in the right cavities.

Abdomen. There was a considerable quantity of yellowish serum in the peritoneal cavity. The stomach was distended, containing ℥viij of brownish fluid; it tore by the weight of its contents, when raised. The intestines were loaded with fat; but they were not otherwise unhealthy, except exhibiting, together with the stomach, a pale, bloodless aspect. The liver was nearly one half larger than the normal size, of a pale lead colour; the texture was somewhat friable. The spleen was of natural colour, soft. The kidneys were pale and bloodless. The uterus was somewhat larger than usual at this period after delivery, pale, flaccid, and contained a small quantity of nasty slate-coloured substance, which, when removed, exhibited a dull white internal coat, on which the orifices of the uterine vessels could be discerned.

Head. Not examined.

There had been but a scanty secretion of milk at any time after confinement. Abscesses had, however, formed in both mammary glands, containing much pus.

Remarks. The actual morbid change in the characters of the blood in this disease, appears to be a diminution in the proportion of red corpuscles, without any alteration of the absolute quantity of fluid in the vessels, although the serum exists in undue proportion, and the specific gravity of the blood is diminished. The analyses of this fluid in chlorosis, by Lecanu, have shown it to contain, in 1000 parts, nearly 862 water, 83 albumen, and 55 red corpuscles; 115 being the average proportion of the last in the normal condition.

It is chiefly in connexion with the puerperal state that anæmia is most malignant, and seems in most cases to bid defiance to all remedies.

What is the peculiar influence of the uterine system upon the condition of the blood, which predisposes the circulating fluid to assume the peculiar character of chlorosis or anæmia? The term "hypæmia" has been suggested by Andral, as more correctly indicating the actual pathological condition in these diseases.[1]

[1] Should the present name be retained, "anhæmia", as proposed by Good, and by Professor Channing, in his valuable notes on this disease, may be the more correct orthography.

Dr. Appleton has reduced to a tabular form the symptoms in twenty-one cases of this disease, which have been described by different authors, including that of which the history has been given above. The results derived from this table show the greater or less frequency of the more prominent characteristics of the disorder.

In the records of these twenty-one cases, extreme pallor or bloodlessness of the surface was noticed in all. Emaciation, which both Good and Copland have mentioned, was only observed in three cases. Petechial spots were seen in two. The loss of muscular strength was noticed as remarkable in ten cases of the twenty-one. In three, syncope was induced by assuming the erect posture. Headache was prominent in five cases, and intolerance of light and sound was excessive in five. Eight patients complained of noise in the ears. Delirium is only noticed in two cases, and confusion of mind in one; while the mental faculties are described as remarkably clear in others. Restlessness was present in three cases. Dyspnœa was urgent in seven, and probably existed to a greater or less extent in others. Cough was noticed in three cases. Five patients suffered from palpitation, while the action of the heart was greatly accelerated in eleven. The digestive organs were affected as follows: Two patients had sore mouth. The appetite was diminished in five, and voracious in one. Nausea and vomiting were present in four cases. Diarrhœa supervened in seven, while the bowels were constipated in two. Four complained of excessive thirst. Chills were noticed in three cases. Among the puerperal patients, the secretion of milk was scanty in two, and milk-abscess was formed in three. Many of the descriptions are more or less imperfect, and some of the more prominent symptoms probably existed in other cases than those in which their appearance is recorded.

Pathology. The most important and constant lesion revealed by autopsic investigation of this singular malady, consists in the change in the character of the blood.

On collating the morbid appearances shown by *post-mortem* examinations, in six cases among the twenty-one to which reference has been made, the vessels are described as nearly empty of blood in three cases, while in all the six the fluid was of a pale red, watery, coagulating firmly in one case; while, in three others, the fibrinous deposits were whitish and soft. In one case, the blood was mixed with a thick, whitish, opaque fluid. No appearance peculiarly characteristic of the disease has generally been found in the cranial cavity. Increased firmness and density of the brain was noticed in a single case. There was considerable effusion in the cavities of the thorax, in five subjects; amounting to $1\frac{1}{2}$ pint in each cavity in one instance. The lungs were permeable to air in every part in all the cases, but slightly œdematous in two. Emphysema was present in one case. The quantity of serum in the pericardium was unnaturally increased in two cases, in one to more than a pint. The heart was pale and flabby in four, and in one the muscular substance was soft and easily torn, while in another it was moderately firm. The peritoneum contained a considerable quantity of serum in two cases, and was healthy in three. The intestinal canal was healthy in three cases: its coats were pale in two, slightly injected in another. The liver was pale in three cases, greatly enlarged in one, extremely friable in one, and healthy in one. The spleen was large in two cases, and healthy in another; it was soft in one case. In all the cases, the kidneys were pale, and in one flaccid. In every case in which the disease supervened on the puerperal state, four in number, the uterus was found to be pale; the muscular tissue was soft and easily torn in one case; and in two the tongue was flaccid.

In the present state of our knowledge, we cannot trace all the circumstances under which this disease is developed, or account satisfactorily for the phenomena presented during its progress.

Treatment. The most satisfactory results have followed the use of iron in some of its preparations. Of these the sulphate seems to have been most

generally used. The phosphate was principally relied on in the case above reported. Sir H. Marsh, in a communication to the *Dublin Journal of Medical Sciences*, considers iron to be most efficient, when combined with some one of the preparations of cinchona and other vegetable tonics. In those cases in which iron cannot be borne by the stomach, other metallic tonics, as the salts of bismuth, have been recommended in its stead. Pure and dry air, light, and a nutritious diet, are important adjuncts in the general plan of treatment.

THE OBSTETRICIAN'S TOILET: HINTS BY PROFESSOR SIMPSON.

In a recent discussion upon Puerperal Fever, before the Medico-Chirurgical Society of Edinburgh, Dr. Simpson urged "the great importance of carefully ridding the fingers from all matters in the least degree likely to prove hurtful, if inoculated into the vagina of a puerperal patient". Chloride of lime, he said, "has been recommended by various practitioners as a good wash for ridding the fingers of morbific matter". Dr. Simpson "has used for the same purpose for years, daily (or rather, generally, often during the day), a solution of cyanide of potassium, which is more effective even than chloride of lime; and it had this other advantage, that it removes, readily and at once, all such stains as the fingers of the accoucheur are apt to receive in treating uterine diseases—with nitrate of silver, iodine, and the like."

Dr. Simpson objects to the use of *gloves*. "He had been informed of an instance by Professor Patterson, in which a medical gentleman, after having lost several cases of puerperal fever, got rid of the disease in his practice by changing his clothes, and using chloride of lime, etc.; but it again returned to him, when he happened to deliver a patient, immediately after wearing a pair of gloves which he had used during the time of the puerperal epidemic: and certainly, if there was any piece of dress more apt to retain the contagion than another, it was this *useless and superfluous appendage* to our attire." [*Edinburgh Monthly Journal*, July 1851, p. 75-77.]

SUCCESSFUL CASE OF TRANSFUSION OF BLOOD.

In the London Journal of Medicine for June, p. 570, we gave an account of a case in which transfusion of blood had been practised by M. Nélaton, and in which the patient ultimately died. The operation, so far as its immediate effects were concerned, was successful; and we scarcely believe it to have had any influence in the production of the fatal attack of metro-peritonitis. We will now quote from the *Gazette Médicale* for July 5, a case, in which transfusion was performed by Dr. Marmonier under circumstances similar to those occurring to M. Nélaton, and in which the patient completely recovered. It is extracted from the *Revue Médicale* for 1851.

Case. On January 3, 1851, Dr. Marmonier was called to the woman M., aged 30 years, of a lymphatic constitution, slightly weakened by several frequent pregnancies, by tedious labours, and by moral and physical troubles. On his arrival, the pains had almost ceased. The patient was feeble, and exhausted by long and fruitless attempts to expel the child, which was prevented by anteversion of the uterus. Turning was performed. Unusual hæmorrhage followed; the placenta was rapidly extracted, and the uterus excited to contraction. The hæmorrhage was soon arrested.

In an hour and a quarter, hæmorrhage occurred in abundance, and was terminated by syncope. It soon recurred; and this time left the patient in a long fainting fit, and in a state of great weakness. Dr. Marmonier was called back to her; he found her extremities cold, the pulse almost imperceptible and sometimes absent; the sight was obscured, and there was frequent fainting. He employed astringent and refrigerant applications, the

concentrated infusion of ergot, dry frictions on the surface, and hot cloths to the limbs, for three quarters of an hour, without the least amendment. The death of the patient seemed inevitable, when he determined, although unprovided with the necessary apparatus, to perform transfusion of blood.

The apparatus which he was able to obtain consisted of a child's syringe, capable of holding 70 grammes (between two and three ounces), some hot water, basins, and linen. A young female, a neighbour of the patient, consented to supply the blood.

Dr. Marmonier laid bare the right basilic vein for about an inch and a quarter; he then isolated it for about four-fifths of an inch, so as to pass a thread under it, which might tie it down to the canula of the syringe. He then made an incision in the vein for one-fifth of an inch; only two or three drops of blood escaped. The vessel was compressed above and below. He then caused the blood to flow from the young woman into a cup placed in a vessel of hot water. Having first warmed the syringe, he filled it with blood, taking care to introduce no air, and introduced it into the opening in the vein. After carefully pushing down the piston about a third of its length, the flow was found to be retarded; this inconvenience was obviated by wrapping the syringe in cloths dipped in hot water, when it was again introduced. All the blood contained in the syringe now entered the vein. The total quantity introduced was about 90 grammes (about 4 ounces). The operation was unattended by pain or any other inconvenience.

Almost immediately after the transfusion, the respiration became more regular, and the pulse stronger. The disposition to syncope ceased suddenly. The obscurity of vision was rapidly dissipated. Dr. Marmonier ordered the frictions and hot cloths to be continued; and administered rhatany and ergot. The circulation and the animal heat were gradually reestablished. Two hours after the operation, the patient slept for some minutes; and this was followed by an unhoped-for amelioration. From this time, convalescence was rapid; the milk was secreted regularly. In ten days, the patient could sit up for an hour each day; on the twentieth day, she was quite well; and on the thirtieth day, she had resumed her ordinary occupations.

MATERIA MEDICA AND PHARMACY.

CHLOROFORM AS A SOLVENT OF CANTHARIDIN.

Mr. William Proctor, after noticing the discoveries of Rabourdin regarding the solvent powers of chloroform, makes the following very interesting statement.

An ounce (480 grs.) of Spanish flies in powder, and two ounces of chloroform, were macerated together for forty-eight hours, and thrown on a glass percolator, the diaphragm of which consisted of a thick sheet of lint, and fitted with a cover to prevent loss by evaporation. The superior density of the menstruum causes the flies to float in it, for which reason it is better, after the solution has drained off, to place a heavy diaphragm on the flies, and return the solution to the percolator; after it had passed a second time, a little chloroform was added, and finally alcohol ·835, until all the first menstruum has passed, which is known by the difference in density and colour of the alcoholic liquid, which contains the brown colour left by the chloroform.

By spontaneous evaporation, the dark green chloroform solution yielded a crop of crystals of cantharidin, admixed with the green fixed oil peculiar to the insect; the whole residue weighed forty-three grains. After standing forty-eight hours, that the crystals might have time to separate, the whole was thrown on several thicknesses of filtering paper, to absorb as much as possible of the oil. The crystals were then dissolved in a mixture of chloro-

form and a little alcohol, and by spontaneous evaporation were obtained in nearly a pure form.

The particular merits of chloroform as a menstruum in obtaining cantharidin, are, that it is a better solvent than ether or the oils; that a less quantity can be used with more effect, employing alcohol to displace it, and that the cantharidin crystallises more readily from chloroform than from ether. The expensiveness of chloroform precludes its use in the preparation of the ordinary blistering liquids, or tissues, but where the object is to isolate the cantharidin, the advantages above-mentioned, together with the fact that most of the chloroform may be regained by distillation, will render its use altogether eligible.

Cantharis Vittata. Not being aware of any chemical examination of this insect with a view to demonstrating the existence of cantharidin in it, I have applied the solvent property of chloroform to this purpose. One hundred and twenty grains of the flies, reduced to powder, were percolated with chloroform, slowly added, until three times the weight of the flies had passed. The tincture had a greenish brown colour, the brown predominating. A few drops of this, by evaporation on glass, deposited a coating of minute crystals visible to the eye; and their shape was discoverable with a common lens. The whole of the chloroform solution was then suffered to evaporate in a suitable vessel, and yielded a residue of twelve grains. This consisted of crusts of minute crystals, admixed with a greenish brown fixed oil, the latter in much less quantity than the green oil obtained in the same manner from Spanish flies. The whole was laid on thick filtering paper to absorb the oil, the crystalline matter dissolved in a little chloroform and alcohol mixed, which by spontaneous evaporation yielded it in a much purer form, though not entirely colourless. The cantharidin appears to be associated with less fixed oil in the potato fly, than in the Spanish insect; the oil has much less colour, and is more fluid. The cantharidin separates in sword-shaped prisms, terminated obliquely.

Mylabris Cichorii. Having in my possession a specimen of the Spanish blistering fly, mylabris cichorii, the same trial was made with it. One hundred and twenty grains, in powder, were percolated with chloroform till exhausted. The solution possessed a deep brown colour, without a tinge of green. A few drops evaporated yielded a crop of crystals admixed with a transparent brown oily matter. The crystals were larger than those yielded by either of the preceding flies under the same circumstances. The tincture was then suffered to evaporate spontaneously, and yielded an oily crystalline residue, weighing fourteen grains. The crystalline matter was separated from the brown oil by absorption with filtering paper, and was purified in the same manner as in the preceding experiments. The crystals corresponded in shape with cantharidin from the two varieties of cantharis.

In stating the weight of chloroform extract obtained from each of the three species of insects examined, no conclusive evidence can be drawn relative to their activity, as in the two first experiments the flies were not exhausted. Besides, the amount of oil and colouring matter varies; and, as in neither case was the whole of the cantharidin isolated from the extract, its absolute amount is undetermined. The fixed oil must be well pressed out from the crystals before purifying them by recrystallisation.

In order to feel assured that the substances obtained were really the blistering principles of the insects, a small quantity of each, mixed with a little oil, was applied to my arm, and left on for eight hours. Vesication had occurred before their removal in each instance, but more perfectly with the Spanish and Chinese flies than with the indigenous variety, owing, as was afterwards observed, to the crystals of cantharidin in the latter substance not being properly comminuted and disseminated through the oil. On the application of cerate, however, they were all equally developed. [*American Journal of Pharmacy.*]

CAFEIN: ITS CITRATE AND LACTATE.

The high price of cafein is at present an insuperable obstacle to its general use in medicine; but it appears from an article in the *Journal des Connais. Medico-Chi.*, for the 1st of April, 1851, that if it were economically prepared on a scale sufficiently large to admit of its therapeutic properties being fairly tried by different practitioners, some important results might be obtained. The citrate and lactate, but especially the former, seem to merit clinical investigation.

SULPHATE OF ZINC AND TANNIN COMBINED IN LOTIONS AND OINTMENTS.

It can be no objection in practice to the combination of these substances, that the sulphate of zinc is decomposed, provided it appear that by the combination we obtain a better astringent than is afforded by either separately. We are inclined to think that Ricord and others are right in supposing this to be the case. In gonorrhœa, Ricord frequently prescribes the following as an injection to be used two or three times daily; and it is obviously applicable as a lotion to other cases. Take of tannin and sulphate of zinc, each one gramme; rose water two hundred grammes. If the sulphate of zinc be perfectly pure, the solution will be colourless; but if (as is generally the case) it contain some oxide of iron, it will be of a deep red hue, from the formation of a tannate of the oxide of iron, which, being a good astringent, does not injure the lotion.

In France, ladies who suffer from leucorrhœa and relaxed vagina use a famous pomatum, known as the *pommade virginale à la Comtesse.* The basis of this nostrum is also a tanno-sulphate of zinc. The following is the formula for the preparation of this pommade. Take of sulphate of zinc, forty grammes; galls, and cypress-nuts, and pomegranate-bark, of each twenty grammes; myrtle leaves, and sumach, of each thirty grammes. Pulverize them: and mix them in rose ointment, the quantity used depending on the degree of astringency required.

NITRATE OF SILVER CAST IN BALLS.

Dr. Gideon Smith thus describes his method of using the solid nitrate of silver. He casts the salt in ordinary pistol and musket bullet-moulds. "Fuse the salt (crystallized) in a porcelain capsule, warm the iron bullet mould, and cast as you would a leaden bullet. You can then cement the bullet firmly, to a wood or other holder, with black sealing wax. In this form it presents a smooth surface, and you can make it as large as you please; and in the application of it to erysipelatous inflamed surfaces this is important. With the small bullet you can touch the surface of the eyelids, in scrofulous conjunctivitis, and the erysipelas of the face, very comfortably; and, let me add, with infinitely more effect than with the solution. In applying the nitrate to the cervix uteri, and the vaginal cavity, I use the ball attached to a rod sheathed with a glass tube; withdrawing the ball into the tube until I have reached the extremity of the cavity, then projecting it, I sweep the cavity around the cervix circularly, gradually working it outwards until the whole or such part of the cavity has been touched as I desire, then withdraw the ball into the tube, and withdraw that. By this means I save entirely the disagreeable and painful use of the speculum; and by shielding the ball with the glass tube, I avoid touching the external parts, or any part not desired to be touched. To old ulcers and sores, I use a nearly saturated solution of the nitrate with the happiest effect. I wet the whole diseased surface with a camel's-hair pencil, dressing afterwards with lint." *Boston Medical and Surgical Journal*, 23rd April, 1851. The method of Dr. G. Smith has obviously many and great advantages.

THE HOSPITALS OF LONDON. No. VII.

BY DR. CORMACK AND DR. SEMPLE, ASSISTED BY NUMEROUS REPORTERS.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, AT BROMPTON.

Consulting Physicians — Dr. Forbes, F.R.S., Dr. C. J. B. Williams, F.R.S., Dr. Walshe.

Physicians — Dr. Hamilton Roe, Dr. Theophilus Thompson, F.R.S., Dr. Cursham.

Assistant-Physicians—Dr. R. P. Cotton, Dr. R. Quain, Dr. J. Hutchinson.

Consulting-Surgeon—W. Fergusson, Esq., F.R.S.

Resident Medical Officer—Vertue Edwards, Esq.

It has always been a maxim—and a very proper one—with the general hospitals of our metropolis, *to do the greatest possible amount of good to the greatest possible number of individuals;* and this has led unavoidably to the rejection of certain chronic and other affections, ordinarily looked upon as incurable, from their portals. Consumption having been necessarily included in this list, phthisical patients have long required some institution where medical skill might be sedulously devoted to their relief, and, after this may have failed, where tenderness and care might soothe their passage to the grave. In the hospital at Brompton, these objects are combined—both an hospital and an asylum are offered to the consumptive sufferer; whilst an opportunity is afforded, for the first time in this country, for extended scientific and practical observation upon a disease which annually destroys at least one in every 300 persons.

In the patronage given to this charity, England has set a brilliant example to other nations; for, notwithstanding the universality of consumption, no other hospital exists for its reception, except at Rome, where that of St. John in Laterano, containing 400 beds, admits females affected with phthisis; but it is not exclusively devoted to this disease, a certain proportion of the beds being employed for cases of fever.

The benevolent scheme of founding an hospital for consumption, in this country, was first entertained by Philip Rose, Esq., and communicated to several friends; and these gentlemen have now the satisfaction of seeing the fruit of their early efforts in the permanent establishment of the present institution.

In the year 1842, the charity commenced its operations in a private house in Chelsea, capable of containing twenty patients, and having a small out-patient department. But it was not destined to a long continuance in such comparative insignificance, and in so limited a sphere of action. In the summer of 1844, H.R.H. Prince Albert laid the foundation stone of the present building, which was completed in 1846.

The style of the building is worthy of remark, since it was the first attempt to adapt the collegiate and domestic architecture of England, as it prevailed towards the close of the fifteenth century, to the purposes of a modern hospital. It probably suggested itself to the mind of Mr. Francis, the architect, that something of a more cheering and inviting character than the plain and massive edifices of the present day was desirable for an hospital which was intended as the future scene of a somewhat unusual share of gloom. The architecture is Tudor. The walls are of red brick, with blue headers, interlaced in pattern; and Caen stone dressings are applied to the gables, windows, buttresses, etc. In form, the building resembles the letter H, consisting of a centre and two wings; one wing, however, yet remains unfinished. In the quadrangle facing the high road, the plainness of the walls is relieved

by oriel windows, buttresses, and battlements, and a tower with octagon turret rises from the centre; the doorway is deeply recessed and its top battlemented. The centre of the building is chiefly devoted to domestic and business offices; and the two wings are principally intended for male and female patients respectively. The wards differ in size, being constructed to receive from two to ten patients in each; they are light and lofty, and afford upon an average 950 cubic feet of air to every patient. The total accommodation, at the present time, extends to forty-five beds for males, and the same number for females; but the hospital will contain, when completed, not less than two hundred patients. All the window-sashes are fitted with double panes of glass, for the preservation of warmth and the avoidance of drafts; and there is a large corridor upon each gallery, well warmed and ventilated, where the patients can take exercise when unable to walk in the grounds attached to the hospital.

The mode of heating and ventilating the building occupied from the very first the anxious attention of the managing committee. The whole subject was referred to Dr. Arnott, under whose direction the present arrangement was carried out. It consists of an apparatus for propelling air warmed to a regulated temperature through the entire building. The warming and ventilating chamber is in the basement of the building under the central tower, and contains:—

1. A steam-engine for working the pump.
2. A pump for drawing in the external air, and propelling it through the building.
3. A series of copper plates arranged in a large chamber, so constructed that hot water passes freely between them, and imparts its heat to the air immediately after it has escaped from the pump.
4. Channels for conveying the heated air to every part of the building.

Two thousand one hundred and sixty cubic feet of air per minute are thus drawn from the exterior of the building, and forced between the heated copper plates, which are placed between the pump and the main channel. The admission of the air thus warmed into the wards and corridors, is regulated by a number of openings close to the floor, whilst its escape is provided for by one or more of Dr. Arnott's valves introduced into the chimneys. The fireplaces are not absolutely required for this arrangement, and therefore are generally kept closed.

Such is a brief sketch of this ingenious method of combining the heating and ventilating processes. A difference of opinion, however, has long existed as to its efficiency. Whether or not this is attributable to a defective manner of pursuing it, is equally disputed; and the whole subject of ventilation to be applied to the new wing is, as yet, under consideration.

The chapel, which is an elegant specimen of ecclesiastical architecture, built from the designs and under the direction of Mr. Lamb, was munificently founded by the Rev. Sir Henry Foulis, Bart., and consecrated in 1850. This building is likewise of the style of church architecture as it prevailed about the end of the fifteenth century. It is divided into nave, transepts, and chancel. The roofs are of arched wood framing, and the spandrels filled with tracery. The sittings are divided into classes; those in the chancel are for presidents or clergy; those next the transepts, for the governors and officers of the institution; and behind these are the seats for the patients. The whole of the seats are cushioned. All the fittings are of oak, and in appropriate positions are decorated with the arms and crest of the founder. Most of the windows have been filled with stained glass, presented by patrons of the institution. The chapel is approached by a corridor from the entrance hall, which, together with the chapel itself, is warmed by hot water.

Having described the general purposes and character of the building, at a greater length than may have been usual in this series of hospital records, but in a manner which could scarcely have been abridged, and may not,

perhaps, be deemed uninteresting, in consequence of its novelty, it remains that we should add some remarks upon its medical reputation as an hospital and school.

We might point to the "First Medical Report of the Hospital for Consumption" as an evidence of the zeal and ability of its medical officers. This publication, which has received the general approbation of the profession, and which was noticed in this JOURNAL (vol. for 1850, p. 37), was founded entirely upon the statistics of the hospital, and resulted from the *combined* efforts of the physicians and assistant-physicians,—a result of harmony and good feeling amongst colleagues, of which we hope, in coming years, to see many similar examples, not only in this, but in other hospitals. Observations upon a still larger scale, and embracing points not yet treated of, are steadily progressing at Brompton, and we look forward with no little pleasure to the appearance of the Second Medical Report.

In order to supply materials for these reports, a very perfect system of registration of cases, embracing their history, progress, and treatment, is carried on by two resident clinical assistants upon the in-patients; and a complete statistical record of the out-patients is likewise adopted by the assistant-physicians.

The following tables, derived from the hospital books, illustrate the kind and extent of these observations.

TABLE I. IN-PATIENTS.

OBSERVATIONS.

Date.	No.	Name.	Age.	Sex.	M. or S.	Mode of living.	Colour of hair & eyes.	Fingers clubbed.	Predisposition.*	How long ill.	Previous diseases.†	Catamenia.	Hæmoptysis.	Pulse.	Respiration per minute.	Cough, how long.	Expectoration.‡

N. Sweats.	Diarrhœa.	Urine.¶	Height.	Weight.	How long losing flesh.	Capacity of lungs.	Disease.	Complications.	Treatment.	Result.	Date of Discharge or Death.	Remarks.

* Under this head are arranged the various grades of relationship, viz., father, mother, etc.
† This is divided into "Nature of" and "How long since."
‡ Includes "character" and "quantity."
¶ Under this is given the Sp. gr., Quantity, Acid, Alkaline.

TABLE II. OUT-PATIENTS.

Date.	No.	Initials.	Age.	Sex.	M. S. or W.	Character of			Has had			Predisposition.	Disease.	Complications.	How long ill.
						Occupation.	Residence.	Living.	Scrofula.	Rheumatism.	Syphilis.				

Parts most affected.	Hæmoptysis.	Catamenia.	Pulse.	Respiration.	Height.	Weight.	Vital capacity.	Treatment.	Result.	Duration.	Remarks.

Careful and extended notice is also taken of the post-mortem appearances of fatal cases; a leaf of the book kept for this purpose is here transcribed.

TABLE III.

No.	Case Book.	Name and Age.	Date and Weather.	Hours after Death.	Rigor Mortis.	Condition of the				
						Body.	Brain.	Lungs.	Air Passages.	Pleura.

Condition of the							Remarks.
Heart.	Alimentary Canal.	Liver.	Spleen.	Kidneys.	Organs of Generation.	Glands.	

A pathological museum is in progress of formation, which must ultimately contribute important aid to the study not only of phthisis, but of other tuberculous diseases.

Pupils are admitted to the hospital practice, and some of the medical officers have already delivered lectures upon the diagnosis and treatment of phthisis; and hopes are entertained of thus rendering the charity useful as a school for the study of diseases of the chest.

Since the opening of the new building, 1,524 in-patients have been admitted; and between 3,000 and 4,000 persons attend annually as out-patients.

The in-patients are chiefly the subjects of phthisis; but sufferers from other diseases of the chest are frequently admitted. No selection is made of cases, so that phthisis may be studied in all its different phases. The period for patients remaining in the hospital is limited to three months; but cases which have arrived at the very last stage, and must soon close in death, are not dismissed at the expiration of this time; and the physicians are privileged to recommend an extension of residence to any particular cases, by which the purposes either of charity or medical science are likely to be advanced. The out-patients are not so limited as to the nature of their cases, any form of real or supposed thoracic disease being considered within the operation of that department: heart affections, dyspepsia, bronchitis, asthma, etc., are consequently common amongst them, and afford an excellent field for comparative diagnosis.

Cod-liver oil is pretty generally administered, in some form or other, by all the medical officers, whose good opinion of its effects, as originally expressed in their Report, still remains unshaken. This cannot be better shown than by the extent to which it is employed. In the year 1849, £260 were expended in this medicine alone; and during the first quarter of the present year, 156 gallons were disposed of. The best pale-coloured oil only is used; none of an inferior quality being now ever received into the hospital. During its administration, the patients are carefully and periodically weighed; and the results compared with the other symptoms. Some of the physicians have employed other animal and vegetable oils; and will, it is hoped, inform the profession of their comparative effects, when such have been sufficiently tested.

In closing this account of the Brompton Hospital for Consumption, we have only to express our approbation of the scientific and charitable zeal evinced in its operations. On future occasions, we hope to be able to place before the profession occasional reports upon the interesting points which must ever be presenting themselves to the notice of the physicians.

THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

[*With two Woodcuts.*]

In our last number (p. 688), we mentioned that the first stone of this Hospital was laid by his Royal Highness Prince Albert, on Wednesday the 25th of June last. We now propose to give a brief notice of the history and objects of the institution.

The City of London Hospital for Diseases of the Chest was established in June 1848; and differs in some degree in its objects from the Hospital for Consumption at Brompton, being established for the treatment of all forms of pulmonary and cardiac disease; while the hospital at Brompton was originally intended to be limited to the reception of cases of consumption. This rule, however, as we have stated, is not rigidly acted upon at Brompton. We think the promoters of the new hospital have done wisely, in deciding to admit to its benefits persons labouring under all forms of affection of the chest. Owing to the great prevalence of consumption in this country, the number of persons applying for relief, to any institution specially devoted to the treatment of that disease, will almost necessarily exceed the amount of accommodation; and thus many persons will constantly be waiting for admission, and comparatively few will be received till after the period has gone by during which medical treatment can be of much avail: and we can conceive few things more disheartening, both to the patients and their medical attendants, than to see constantly around them only those who are sinking rapidly under incurable disease, or whose sufferings are only susceptible of very partial alleviation.

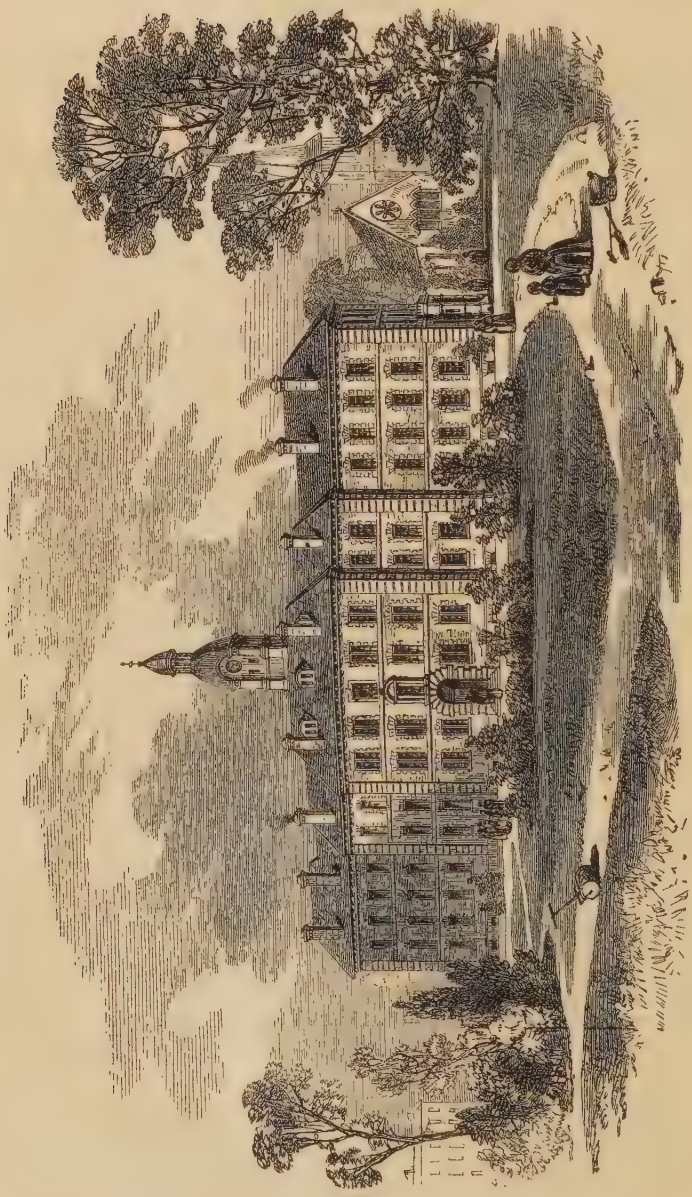
Of late years, the number of institutions specially devoted to the treatment of particular forms of disease have too much increased; but, within just limits, we conceive that the practice is conducive to the advancement of medical science. Such institutions should, however, be limited to the reception of cases which require, for various reasons, to be placed apart from the mass of cases in a general hospital, or of which the cure can be best conducted in wards specially adapted for the purpose. They should embrace a sufficiently wide field of observation; and the attention of the medical men connected with them should not be too exclusively directed to the study of the class of diseases, for the relief of which they are established. The former of these requirements is, we think, fulfilled in reference to the institution in question; and of the seven medical men attached to it, five are connected with large general hospitals. The out-patient department has as yet only been in operation; but we observe by the reports that already 9,000 persons have been under treatment, and that the daily attendance of patients varies from 70 to 140; facts which sufficiently attest the want which existed for such an institution in the eastern portion of the metropolis. Though the hospital has been so short a time in operation, it has already been deprived by death of the services of two of its medical officers, Mr. Aston Key, the consulting surgeon, and Dr. Allen Williams, one of the acting-physicians. The present medical staff is as follows:

Consulting Physicians. Dr. Babington, and Dr. Jeffreson.

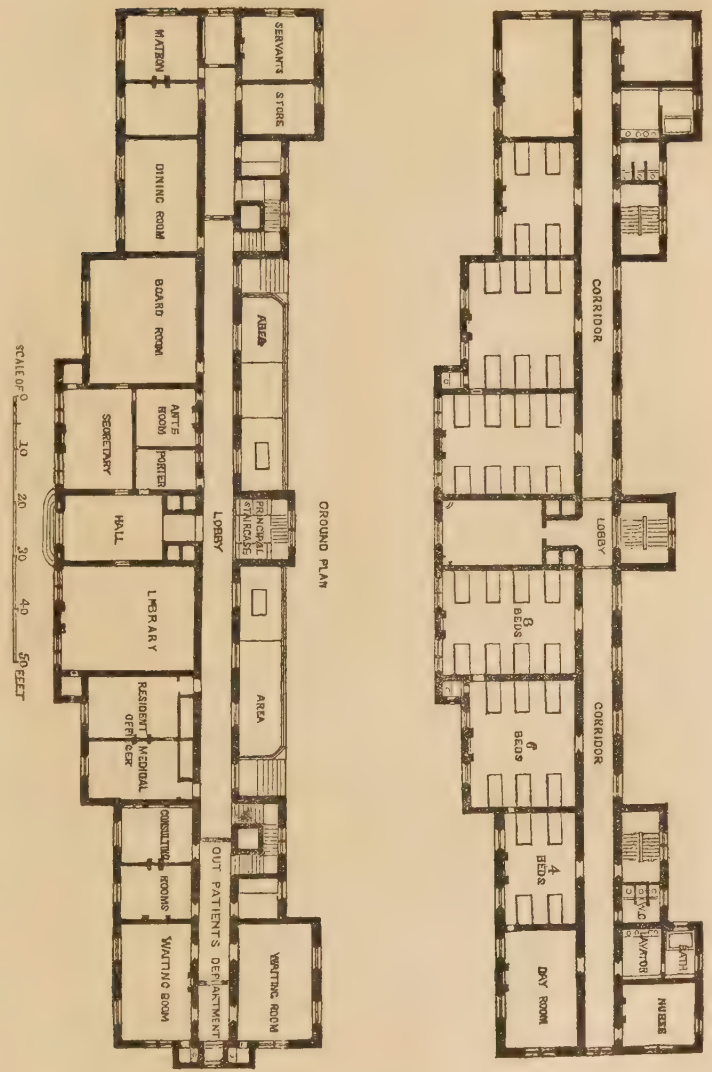
Physicians. Dr. Peacock, Dr. Bentley, Dr. Risdon Bennett, and Dr. Birkett.

Surgeon. Mr. Hilton.

It would be premature at present to speak of the institution as a field for medical study; but, with its present large number of patients, the opportunities for investigating the various forms of disease of the respiratory and circulatory organs must be considerable; and when the hospital is completed, its sphere of usefulness will be greatly extended. A system of statistical registration has been in use since the first opening of the dispensary, and will in time yield valuable results; and there already exists a collection of



Elevation of the City of London Hospital for Diseases of the Chest, Bonner's Fields, Victoria Park.



Plans of the First and Second Floors, showing the accommodation for In-patients.

preparations illustrative of cardiac and pulmonary affections, and which, though small, contains some rare and interesting specimens of disease. We trust that when fully in operation, the institution will form an useful school for the study of the particular class of diseases for the relief of which it has been established, and that it may conduce, along with the sister institution at Brompton, to the advancement of our knowledge of those affections.

The Hospital, the erection of which is now actively proceeding, will be situated immediately adjacent to the principal entrance to the Victoria Park, where a plot of ground, upwards of three and a half acres in extent, has been obtained from Government. This site is in every respect a favourable one. Its vicinity to the centre of the city, and to some of the most crowded and unhealthy districts of the metropolis, will render it easy of access to those who are likely to avail themselves of its advantages; while, being well drained, on a deep bed of gravel, and immediately adjacent to the park, it must ever be a dry, open, and healthy situation. The building has been designed of red brick and stone, in the style which prevailed at the early part of the last century. The central portion only will be first erected, and will contain wards for eighty patients, and full accommodation for the out-patients' department. The wards, which will be situated on the first and second floors, will be arranged for four, six, and eight beds each; the space allotted to each patient varying from 800 to 1200 cubic feet. A day room will be provided for each set of wards, in which patients capable of leaving their beds may sit and take their meals, apart from those more severely indisposed; and wide, lofty, and cheerful exercising corridors will occupy the whole length of one side of the building. Hot and cold water will be supplied throughout, and two complete sets of baths will be placed on each floor. Separate waiting rooms for males and females, with other accommodations, will be provided in connexion both with the consulting rooms and dispensary.

The ventilation of the building will be effected by a fresh air shaft, placed about fifty feet from the hospital, and raised twelve feet above the ground. This will lead into a chamber extending under the whole length of the basement, and sufficiently large to admit of being entered for cleansing, etc. By the side of this chamber will be placed a second, of the same dimension, with which it will communicate at frequent intervals. The air in this chamber will be warmed by hot-water pipes in connexion with a boiler and furnace, and will be thence distributed by flues which pass direct from the chamber into all the wards and corridors. The foul air will be extracted by a shaft passing up a lofty campanile, into which ducts will open from all parts of the building, and in which an ascending current will be maintained by means of a coil of hot-water pipes, heated by a separate furnace and boiler situated in the basement. The communications between the chambers in the basement will be so arranged, that a larger or smaller proportion of hot or cold air may be thrown into any part of the building; and a provision will be made, by which the whole current of air may be passed from the chambers into the exhausting shaft, in order that the air chambers may be kept pure and free from damp. Standard thermometers will be placed so as to show the temperature of the air; and an apparatus will be introduced, to regulate its hygrometric condition.

The hospital was designed by Mr. F. W. Ordish, and the plan was selected out of twelve presented in competition. The sum of £1,200 has already been expended in the enclosure of the site, and tenders have been accepted for the erection of the building at a total cost of £10,732. Mr. Joseph Paxton, the architect of the Crystal Palace, has furnished a design for a Sanatorium, to be erected at the back of the hospital, of glass and iron, and used as an exercising garden by the patients during cold weather. It is proposed to consist of an elegant building, 212 feet long, 72 wide, and 45 high, with a circular roof, on the ridge and valley principle. The interior will be divided

by a partition, 12 feet high, into two equal portions, having separate communications with the hospital, so that the male and female patients may take exercise at the same time. During cold weather, the air will be admitted by flues, running under the floor and up the partition. The requisite degree of warmth will be obtained from coils of hot water-pipe placed in the partition; and at the top of the building there will be a series of apertures, through which a portion of the air will escape, while another portion being cooled by its contact with the glass, will sink and re-enter the air-flues, so that the fresh air will be gradually diffused over all parts of the interior of the building, and a constant and agreeable current will be maintained, while all direct or cold draughts will be avoided. In summer, the warming apparatus will of course not be required, but ample ventilation will result from the effect of the sun upon the glass. The fresh air will then be admitted at the sides of the building, and in front of the apertures will be placed a screen, which, while it will interrupt the direct current of the air, and cause it to diffuse itself over the interior, will afford support to the roof. It is proposed to regulate, by a special apparatus, the amount of moisture to be contained in the air, both during summer and winter, and the conservatory will be stocked with plants which will flourish in the atmosphere maintained. The cost of the erection of the sanatorium is estimated by Mr. Paxton at £4000.

We do not suppose that the managing committee of the hospital will be disposed to take any part at present in the carrying out of Mr. Paxton's suggestions, nor would it indeed be desirable for them to do so till the hospital is advancing towards completion; but we hope the medical officers will give the plans their attentive consideration, and be prepared to urge upon the committee the erection of the sanatorium so soon as the financial condition of the charity will admit. For ourselves, we think Mr. Paxton's proposition, if carried out, would materially increase the means of usefulness of the institution. Among the many persons who in this country suffer from consumption, or other chronic pulmonary diseases, there are indeed very few who can afford to spend the winter at Malta, Madeira, or the south-west coast of our own island; and in the inferior grades of society, any change is often unattainable; and thus it too frequently happens, that complaints which, under favourable circumstances, are readily and completely curable, become, from too early exposure to the vicissitudes of our climate, or to the fruitful sources of disease which abound in the homes and workshops of the poor, either the cause of permanent indisposition, or of premature death. To all persons so circumstanced, the opportunity of resorting, during the cold weather, to a large and cheerful building, in which a pleasant exercising temperature will be maintained, and plants and other objects of interest will be placed, must certainly be very preferable to being constantly confined to their own rooms, provided, however, that the patients be not exposed to the external temperature in going or returning, for otherwise the result would more probably be injurious than beneficial. To the poor, the combination of a well adapted hospital, with a sanatorium of the description suggested by Mr. Paxton, will, we believe, be of great advantage, and we therefore sincerely hope that the plan may be carried out, and the patients of the new hospital be so placed in the circumstances most conducive to their entire restoration to health. In the treatment of consumption, and other chronic diseases, the employment of means calculated to invigorate the powers of the system, and to cheer and refresh the mind, are not less important than the use of direct remedial agents.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 10, 1851.

JOSEPH HODGSON, ESQ., F.R.S., PRESIDENT, IN THE CHAIR.

CASE OF POPLITEAL ANEURISM TREATED BY COMPRESSION; WITH REMARKS, AND A LIST OF THE CASES TREATED IN DUBLIN. By O'B. BELLINGHAM, M.D., F.R.C.S.I., Surgeon to St. Vincent's Hospital, Dublin. A labourer, aged forty-two, was admitted into St. Vincent's Hospital, under Dr. Bellingham's care in November 1850. The aneurism, which was of large size, was seated in the right popliteal space, had a strong, heaving impulse; and a short, harsh bruit was heard on auscultation. The treatment was commenced by placing the patient upon a very restricted diet, particularly as regards fluids (six ounces only being allowed in the day, with eight ounces of solid food), confining him strictly to the horizontal posture, with a dose of purgative medicine each night. Under this treatment, continued for some days, the pulse, from being hard and incompressible, became soft, small, and slow. Compression was commenced December 4th, at eleven A.M., by means of two instruments, one upon the artery where it crosses the ramus of the os pubis, the other at the lower third of the thigh. At half-past eight P.M., the outlines of the aneurismal sac were more distinct; the patient's skin was cool, and he did not complain of pain. He remained awake during the night, and kept up the compression himself, the points upon which the pad of the instrument should rest having been marked with ink. Next morning, between nine and ten, on unscrewing the instrument, the pulsation of the aneurism was found to have ceased; the tumour was hard, solid, and circumscribed, and an enlarged collateral vessel was felt over the centre of the popliteal region. Moderate pressure was continued for some days; the patient was kept in bed, and the diet was gradually improved. The tumour diminished in size, and became harder; and when the patient returned home, the limb was as strong as the other, and his general health perfectly good.

The author contrasted the results of compression and the ligature, and pointed to the advantages likely to ensue from combining constitutional with local treatment.

In a table appended to the paper, was given a list of all the cases of external aneurism treated by compression in Dublin during the last seven years, in which the seat of the disease was mentioned, the hospital or other locality where the treatment was conducted, the surgeon's name who had the management of the case, and the results were stated. Twenty-six were cases of popliteal aneurism, twenty-one of which were cured; six were cases of femoral aneurism, of which five were cured, the sixth having been a form of traumatic aneurism, in which amputation of the limb was the only resource. Three were cases of brachial aneurism, of which two were cured; in the other, a high bifurcation of the brachial artery existed, and two vessels required to be tied. One was a case of radial aneurism, which was cured by compression. Of the remaining five cases of popliteal aneurism, amputation of the limb was performed in one, the patient recovering; in a second, the ligature was used with success; in a third, the patient was obliged to return to his employment before the cure of the disease; the aneurism diminished in size, and the patient continued to work for above three years afterwards, when symptoms of aortal aneurism supervened, under which he sank. In a fourth, the patient died of pulmonary disease; and the fifth patient, who was of a broken-down constitution, died of erysipelas.

Dissection of a Case in which Two Popliteal Aneurisms had been treated by Compression of the Femoral Arteries. By Prescott Hewett, Esq. A man, aged thirty-eight, was admitted into St. George's Hospital, in the middle of 1848, under Mr. Cutler, with an aneurismal tumour in each popliteal space. That on the right side, completely filling this region, was compressible, but could not be emptied; that on the left, not larger than a small egg, was hard, and to a great degree apparently solid, and with much less pulsation. The tumour on the right side had only existed three months, and nothing had been done for it. From the account of the patient, it appeared that the disease on the left side, which had begun about eighteen months back, had been treated by compression of the femoral artery, at the Wexford Infirmary, where the pressure had been kept up, more or less, for seventeen weeks. During this time the limb had regained its natural size, and the tumour was reduced to its present state, from which it had never since varied, and had caused him but little inconvenience. His general health, which had begun to give way about two years and a half back, had prevented him from following his business of musical instrument maker. When admitted into the hospital, he was pallid, and apparently suffering from great debility. At a consultation of the surgeons, it was determined, under existing circumstances, that compression should first be applied to the right femoral artery; and the instrument, a ring tourniquet, was so adapted as only to lessen the circulation of the limb, and to be worn for a few hours daily. In some little time the limb was reduced in size, and the tumour became smaller and firmer; but pulsation still remained. Some six weeks after his admission, and whilst he was under surgical treatment, cough and expectoration, with difficulty of breathing, made their appearance. Auscultation detected nothing abnormal about the heart, but the lungs were found to be engorged at the back part. The chest symptoms went on increasing in severity; and the patient one day suddenly brought up a large quantity of arterial blood, and died shortly afterwards. The tumour in the right ham had gone on decreasing in size, and had become firmer and more solid; but some pulsation was still felt. No change had occurred in the left ham.

At the examination of the body, which took place thirty-one hours after death, the left aneurismal tumour, deeply imbedded in the popliteal space, was found lying between the joint and the artery, of the size of an egg; it was pyriform in shape, and apparently quite solid, but on cutting into it, the lower half only was filled with long-standing coagula; the upper part, still presenting a cavity lined throughout by a perfectly smooth membrane continuous with the coat of the artery, merely contained some small recent clots. Of the two openings into the sac, the upper one was large, and nearly of the size of the artery; the lower one, on the contrary, was much contracted, and scarcely admitted a common-sized probe. The portion of the artery lying upon the sac was also very much contracted, but its coats were healthy, as well as those of the posterior and anterior tibial vessels, which were of their normal size. In the upper part of the popliteal, and in several parts of the femoral, there were large patches of atheroma, with three distinct aneurismal dilatations, one in the former vessel and two of the latter. The femoral artery and vein were pervious in their whole length, and the surrounding cellular tissue was not thickened. The vein and the nerve in the popliteal space were firmly adherent to the sac, with a few of the fibres of the gastrocnemius muscle. The aneurism on the right side, larger than a cricket-ball, was also lying between the artery and the knee, to which it was firmly adherent. It was filled with laminated coagula, except at the back part, where there was still a small channel leading from the upper into the lower part of the vessel; this channel was rough throughout, and covered with recent fibrine. The upper opening of this channel was free and smooth; the lower one was small, and below it the artery was reduced to the size of

the posterior tibial. Above the aneurism, the coats of the artery were much thickened by atheroma; and here too, about an inch and a half above the tumour, was another small aneurismal dilatation. The femoral artery presented several patches of atheroma; but it was otherwise healthy, and, as the vein, pervious throughout its whole course: the surrounding cellular tissue was not thickened. With regard to the popliteal vein and nerve, the appearances were the same as those observed on the left side. The thoracic aorta was extensively affected with atheroma throughout a great part of its course, and it was somewhat dilated. In its arch, it presented three distinct aneurisms, one of which, the largest, was lying between the large vessels and the windpipe, into which it had burst by a small ulcerated opening, about an inch above the bronchi: the cavity of this sac was partly lined with long-standing coagula. The bronchi were filled with blood, in addition to which the lungs themselves presented several large patches of pulmonary apoplexy, and were extensively affected with emphysema. All the abdominal organs were healthy, excepting the kidneys, which were somewhat smaller than natural, rough on their surface, and with several small cysts in their structure.

Abstract of the Discussion. Mr. Partridge was inclined to think that the London surgeons were open to the remark of Dr. Bellingham, of having neglected the plan under consideration. In King's College Hospital, pressure had been but little employed, and the result was by no means encouraging. This was partly attributable to the imperfect instrument employed, and partly to the circumstance of the patients being entrusted a good deal with the treatment themselves. Thus, a stout healthy-looking man was admitted into the hospital with a popliteal aneurism, and the management of the instrument was mainly left to himself. He screwed up the instrument so tightly that it eventually broke, but not until a large slough formed on each side of the aneurism, which remained in the same state. A ligature was afterwards applied; the man lost his toes by gangrene, but the aneurism was cured. If he (Mr. Partridge) had such an instrument as that exhibited on the table, he should use it, as it was a great improvement on the one usually employed in London. He inquired the experience of surgeons on the state of the artery after compression had been employed unsuccessfully; it having been urged by some that the artery, after the failure of compression, was not in so favourable a condition for the application of a ligature as before.

Mr. Quain had observed good results from compression in a few cases of popliteal aneurism; and he was favourably disposed to that treatment. He feared that a portion of the remarks in the paper first read were not calculated to conciliate support to the practice it advocated; he alluded to the remarks made in connexion with the statement that surgeons out of Dublin "decry" compression as a mode of treating aneurism. This statement, too, he believed to be erroneous; at least, he had not heard anything that would bear it out. But the question really was not, what is thought in Dublin, or in Edinburgh, or in London, but what was the fact as to the utility of compression in the management of the disease. While he listened to the paper, he was struck by the circumstance that no mention was made of the treatment in question being resorted to in aneurisms, other than the popliteal and femoral. He (Mr. Quain) had seen the late Mr. Liston use compression of the brachial artery in a case of aneurism of the hand from injury. Though the compression was made under favourable circumstances (for it was well applied, and the patient gave every aid to the surgeon), still it entirely failed. The disease in this instance was cured by ligature of the brachial artery. In the operation, this artery was by no means so easily secured as it usually is, owing to the thickening of the cellular substance and fascia by the compression; but there was no such difficulty in the case as would jus-

tify, in his opinion, any opposition to the use of compression upon that ground. He thought, at the time, that the want of success in this instance might perhaps have been attributable to the large nerve which courses over the brachial artery. The femoral artery, it would be remembered, has no nerve in of magnitude in company with it.

Mr. Partridge said that the statistics should state whether the patients were cured or not, and how long they remained well. Dr. Bellingham was right in saying that in London we did not habitually employ pressure, and that there must be some reason for it.

Mr. Quain had seen compression employed successfully in cases of femoral and popliteal aneurism, but at the moment he did not recollect the number of cases.

Mr. Prescott Hewett differed from Mr. Partridge respecting the employment of compression by London surgeons; at all events, he could speak for St. George's. During the last three or four years, there had been five cases of aneurism in the hospital, including the one detailed in the paper before the Society. Two of these were cases of popliteal aneurism, one of which was of very large size. In both cases, compression was applied to the femoral artery, but, owing to some peculiarity in the patient, compression was discontinued, and the artery was ligatured: and both did well. The instruments employed were not so clumsy as had been represented: in both cases, compression was kept up by two tourniquets in two parts of the artery. The patients were under the care respectively of Mr. Cæsar Hawkins and Mr. H. C. Johnson. In neither of the cases did the effects of compression render the application of the ligature more difficult. The third case was one of diffuse aneurism of the ulnar artery, consequent upon a wound; in this case, the tourniquet was applied over the brachial. He did not think that the failure in Mr. Liston's case of aneurism in the hand was attributable to the contiguity of the nerve to the brachial artery; for, in the case in St. George's, the pressure was applied over the brachial, and the patient was cured in a fortnight. In the fourth case, compression was tried, and acted apparently with good effect; but in two or three months the pulsation was again detected; the patient was unwilling to submit again to pressure; the artery was consequently ligatured, and a cure effected. The fifth case was the one related in the paper before the Society. In answer to Mr. Partridge, respecting the influence of compression on the after operation of ligature, he might say, in the case operated on, there was no thickening of the sheath surrounding the vessels.

Mr. Curling would have no disinclination to try compression, when a suitable case presented itself. It was a valuable plan of treatment; and the Society was indebted to Dr. Bellingham for bringing it forward. The instrument on the table was not sufficiently known in London. He thought, that in cases of compression on the femoral artery, obliteration of the vein, as in the case mentioned by Mr. Quain, might be avoided by having the pressure applied either just above or below Poupart's ligament. The instrument required management. Where did Dr. Bellingham apply pressure on the femoral artery? He thought Mr. Quain's observations respecting the brachial artery would be borne out by other cases. The pain would be very severe from pressure upon the nerve.

Mr. Cock said that his experience of pressure was limited to two cases of popliteal aneurism. In these cases, the only reason he believed the plan did not succeed was, that the patients did not persevere in the employment of the means—one discontinuing it in four, the other in six days. There was no reason to doubt that if the patients had gone on, they would have got well. The instruments employed in Guy's Hospital were by no means so perfect as the one on the table, and were more irksome. In each of the cases to which he had referred, the femoral artery was tied at the urgent request of the patient. Both patients got well; but in one case the

operation was rendered somewhat more difficult from some thickening and inflammation of the sheath of the vessels. Beyond this, the pressure had not interfered with the application of the ligature. He (Mr. Cock) had no doubt that the failure of the pressure in these cases, and the inability of the patients to bear it for any length of time, had arisen from the clumsy character of the instruments, and the bad manner in which they had been applied, The patients in these cases had not been sufficiently watched, and were seen only daily or every second day. Much more watching and care was required in the proper management of these cases than were usually bestowed on hospital patients, and to a neglect of these the failure in the cases he had related might fairly be attributed, as well also to the neglect of instructing the patient carefully in the mode of applying the pressure. He thought, however, that pressure in the treatment of aneurism would soon be much more extensively employed in London than it had been.

Mr. Hodgson hoped, that if Dr. Bellingham were in the room, he would give some further particulars of his mode of treatment. He thought the profession in England were very much indebted to their Dublin brethren for the great attention they had bestowed on the treatment of aneurism by compression, and to the improved method they had carried out. They had rendered compression much less irksome by the form of apparatus which they employed, and their substitution of an elastic material, like india-rubber, for an inelastic one. Another point alluded to was the application of pressure at two distinct points, so that pain and weariness might be prevented by changing the place of pressure.

Dr. Bellingham referred to some casts on the table of a limb taken before and after pressure had been applied to it, to cure aneurism. In one case, a popliteal aneurism was cured in twenty-four hours; but an aneurism of the opposite side presented itself, and took a much longer time to cure. The patient eventually died from aneurism of the descending aorta. The artery over which the pressure had been applied was found quite normal; the aneurism was obliterated; the vein was normal. In another case, in which pressure had been applied to the femoral artery for popliteal aneurism, galvanic punctures having been also employed, the patient had died, at the end of ten days, from erysipelas. The aneurism was found nearly filled by layers of fibrine; the artery under the seat of pressure was healthy. He had dissected a patient who had suffered from aneurism in both popliteal arteries. One of these was treated by compression; the other by ligature. The latter returned at the end of three or four years; not so the former. The vein and artery were found healthy. It was difficult to apply pressure to the femoral artery, without involving the vein in the compression. In almost every case which he had treated by compression, the pressure had been made at two or more points. He begged to say, that his observations referred to the Edinburgh surgeons; not to those of London, on whom he had no cause to reflect. In the list of cases which had been alluded to in the reading of the paper (but had not been read) instances were recorded, in which the radial artery was the seat of aneurism, and which had been cured by pressure made on the brachial artery. [Dr. Bellingham sat down, amid much applause.]

Tuesday, June 24, 1851.

Joseph Hodgson, Esq., F.R.S., President, in the Chair.

On some Secondary Physiological Effects produced by Atmospheric Electricity. By Professor C. F. Schonbein. After referring to the more obvious effects of electricity upon the organs of sensation, and more especially those of smell and taste, and stating his belief that the peculiar odour observed when an electrical discharge takes place, or in the neighbourhood of points from which electricity is passing, is not due to the electricity itself, but caused by the presence of a peculiar matter which he had named ozone,

the author stated the opinions held respecting it—viz., that either pure or atmospheric oxygen, when exposed to the action of electricity, is transformed into this odoriferous body, which he was at first inclined to consider a peculiar peroxide of hydrogen, but which other eminent chemists believe to be merely an allotropic modification of oxygen. With reference to its exact composition he declined, however, to give a decided opinion. This body is a most powerful oxidizing agent; at ordinary temperatures oxidizing silver, forming iodic acid from iodine, nitric acid from nitrogen; converting the acids ending in *ous* into those which end in *ic*, the salts which terminate in *ite* into those which end in *ate;* metallic sulphurets into sulphates. It decomposes the gaseous components of hydrogen with sulphur, selenium, phosphorus, iodine, arsenic, and antimony, and exerts many other energetic chemical actions, both on organic and inorganic substances. It has a strong electro-motive power, similar to that of chlorine, bromine, and iodine; and lastly, it has certain physiological effects upon the animal system, similar to those of chlorine and bromine, acting powerfully as a poison, even in minute doses. Ozone is being constantly generated in the atmosphere by the electrical action going on. When in excess, it has a sensible effect upon the mucous membranes of those exposed to its influence, and its presence is indicated by starch containing the iodide of potassium being turned blue. The author availed himself of this fact in the construction of his ozonometer, which consists of a box containing test-paper thus prepared, and a chromatic scale. He believed that certain catarrhal affections were produced by the presence of ozone in the atmosphere, and he had, with the assistance of medical friends, ascertained the co-existence of unusual prevalence of catarrh with what he termed his *blue days*. The author then referred to the existence of poisonous miasmata in the atmosphere, which are generated by certain "purely chemical, or physical, or physiologically chemical actions", taking place within the earth, or on its surface, in stagnant or running waters, or in the atmosphere itself. Of these poisonous gases or vapours, there are two sorts which are antagonistic to and destroy each other. Of the first class, sulphuretted, and perhaps phosphuretted hydrogen, alone, are produced by natural causes, and in such minute quantities that they do not, except in a few localities, exert any general influence upon animal life. Of the second class, there is one, namely ozone, which exists in appreciable quantities in the atmosphere. But the abundant source of gaseous matters, is the decomposition of vegetable and animal substances. Some of these are well known, such as carbonic acid and ammonia; others are of unknown chemical nature, and though the absolute quantity of such deleterious matters may be small in comparison to the immense volume of the atmosphere, their accumulation would render the air unfit for the support of animal life, unless some agent neutralized or decomposed them. The purification of the atmosphere which we attempt to effect on a small scale by chlorine fumigations, is accomplished in the great processes of nature by the agency of ozone, a task for which it is peculiarly fitted by its high oxidizing powers. He gave the details of some experiments upon air tainted by putrid flesh, which was purified by ozone disengaged by the action of moistened phosphorus. Ozone decomposes the oxidizable miasmatic gaseous matters which contaminate the air, and thus the atmosphere is preserved in a state fit for the support of animal life, and, at the same time, the ozone, which, if allowed to accumulate, would become deleterious, is in its turn neutralized or decomposed by the miasmata.

During a thunder-storm, large quantities of ozone are formed; and the author supposed that the unhealthy state of the atmosphere which exists in the hot season of the year, may be caused by the accumulation of miasmata produced by animal decomposition; and that it is by the generation of ozone that thunderstorms purify the air. The author considered that there are probably certain states of the atmosphere, in which the quantity of ozone does not bear a due proportion to the miasmata it has to act upon, and that

under such circumstances it is that certain diseases—cholera, for instance—make their appearance. He was also of opinion, that in the winter there is more atmospheric ozone than in summer, and that the higher strata of the atmosphere contain more than the lower; and as the generation of some diseases, such as the yellow fever, appears to be connected with certain seasons and geographical positions, he thought that by an extended series of observations, it might be ascertained whether these diseases bear any relation to the ozoniferous state of that portion of the atmosphere where they happen to occur. The paper concluded with a reference to experiments, which proved that ozone produced by the action of electricity or by the agency of phosphorus is identical.

On a New Method of treating Certain Cases of Epiphora. By William Bowman, Esq., F.R.S. Some cases of epiphora depend on a displacement of the puncta lacrymalia out of the course of the tears, or on an obstruction of the canaliculi between the punctum and caruncle, the inner extremity of the canals, together with the lacrymal sac and nasal duct, remaining healthy. The author described the exact nature of these cases, and related examples. The treatment consisted in slitting up the canal from the punctum on the conjunctival aspect, so as to carry backwards the orifice at which the tears are received, on to the mucous membrane near the caruncle; the tears are taken up by the remaining portion of the canal, while the end towards the punctum is converted into a groove. For the cases of obstruction from injury or other cause, he suggested a modification of this operation, by which the canal between the obstruction and the sac may be slit up for some way, so as to receive the tears at a new opening. The cases to which these new operations are applicable, have been for the most part abandoned by surgeons as incurable.

Description of an Operation for the Radical Cure of Obstinate Stricture of the Urethra. By Dr. Nevermann of Mecklenburgh. [Communicated by B. Phillips, Esq., F.R.S.] Having tried all methods of treating obstinate stricture, the operation with a trocar catheter appeared to the author the most rational. The patient is placed as for lithotomy, and the catheter introduced as far as the seat of obstruction. The operator introduces one or two fingers into the rectum as a guide to the instrument; he then grasps the handle of the instrument, whose point is exposed, with the right hand, and pushes it steadily and forcibly forwards in the axis of the pelvis towards the bladder. When the resistance is found to cease, the trocar is drawn out and the catheter is left in the canal. In four or six days it is replaced by an ordinary elastic catheter. The paper was accompanied by drawings of the instruments and a description of them.

Case of Obturator or Thyroidal Hernia successfully relieved by Operation. By Henry Obre, Esq. [Communicated by Professor Erichsen.] After commenting on the extreme rarity of this form of hernia, and stating that he had been unable to find any record of its having been detected and relieved by operation during life, the author related a case in which he operated successfully. The patient, a female aged 55, the mother of a large family, was seized with symptoms of rupture. She denied that this was the case, and a careful examination shewed that there was no hernia in the usual situations. A little below the femoral region on the right side, however, there was a degree of hardness resembling a small gland, and deeply seated; with some general fulness about the part. The author saw this patient on the fourth day after the symptoms had begun. At this time, she was suffering extreme pain in the umbilical region; during the previous twelve hours, her vomiting had been stercoraceous and incessant; the countenance pale and contracted; voice faltering; pulse weak, small, and intermitting—in short, all the symptoms of pending dissolution from strangulated

intestine were present. On careful examination, nothing could be detected but a slight degree of fulness in Scarpa's triangle on the right side ; that on the opposite side being well marked. On using firm pressure with the ends of the fingers over the neighbourhood of the femoral artery, and a little below the saphenous opening, a distinct hardness was to be felt, slight in extent, but giving the impression as if the sheath of the vessels was being pressed on. The state of the patient was such as to induce the author to make an incision into the upper part of the thigh, down to the hard structure, in the hope that he might find confined intestine low in the femoral canal. He made a straight incision into Scarpa's triangle, as in the operation for tying the common femoral artery ; beginning about three inches below Poupart's ligament. When the cribriform fascia was opened, and the saphenous opening exposed, no hernial sac was found, but the hardened structure could be felt lying deep to the inside of this opening. The dissection was with some difficulty continued downwards ; the fascia lata was divided, and the pectinæus muscle exposed. The fibres of this muscle were divided transversely for about an inch and a half or two inches, and a hernial sac was exposed, which rose up into the wound to the size of a pigeon's egg. The finger, being passed along the sac, entered the obturator opening. The sac was opened, and the intestine was found to be a portion of the small gut, blue and congested. The opening through which it passed did not tightly enclose its neck, but it was considered prudent slightly to divide the edge. In doing this, the saphena vein was wounded, and it was necessary to apply a ligature to its upper part. This was the only ligature required. After the operation, no medicine was given ; in the course of the day the bowels acted three times, and in a few days the patient had quite recovered.

Some Observations on the Pathology of those Affections of the ear which produce Disease in the Brain. By Joseph Toynbee, Esq., F.R.S. The author had a two-fold object : the first was to point out the nature of the several affections of the ear which produce disease in the brain ; the second, to show that each of the cavities of the ear has its particular division of the encephalon, to which it communicates disease. Thus—

1. Affections of the external meatus and mastoid cells produce disease in the lateral sinus and cerebellum.

2. Affections of the tympanic cavity produce disease in the cerebrum.

3. Affections of the vestibule and cochlea produce disease in the medulla oblongata.

1. The intimate relations of the external meatus with the lateral sinus and cerebellum were pointed out ; and the affection most frequently producing disease in these parts was shown to be catarrhal inflammation of its dermoid layer, hitherto classed with numerous diseases under the term otorrhœa. This affection of the external meatus was fully described ; it may endure during many years, without pain or any other symptom of a formidable disease, while the bone may be becoming slowly carious, and portions of the dura mater and cerebellum disorganized.

2. The tympanic cavity is the part of the ear from which disease is most frequently propagated to the brain. This circumstance is accounted for, firstly, by the great liability of the mucous membrane of the tympanum to undergo pathological changes ; and, secondly, by the existence of very intimate relations between this membrane and the dura mater. The affection of the tympanum which most frequently produces disease in the cerebrum, is chronic catarrhal inflammation of the mucous membrane, an affection thus far only known as an otorrhœa. The four changes in the dura mater and cerebrum produced by the affections of the tympanum are—

a. Inflammation of the dura mater, and its separation from the surface of the petrous bone by serum.

b. Ulceration of the dura mater, and its complete detachment from the petrous bone.

c. An abscess in the substance of the cerebrum.

d. Undefined suppuration of the substance of the cerebrum.

From a careful examination of cases, it appeared that chronic catarrhal inflammation of the mucous membrane of the tympanum may exist twenty or more years, without the production of any disease beyond it, or at least without the existence of symptoms by means of which such disease can be diagnosed; nevertheless, in the great majority of cases, vital structures become sensibly affected in a much shorter period.

3. Purulent matter in the vestibule or cochlea sometimes causes disease of the auditory nerve, which is transmitted to the medulla oblongata, producing suppurative inflammation of the meninges, and death, without any caries of the bone.

The author showed the necessity of abolishing the use of the term otorrhœa, and of using in its place the names of the several diseases, eight in number, of which a discharge from the ear is one of the symptoms. The facts which he was desirous of impressing upon the minds of medical men were, that the bone, dura mater, and substance of the brain, may be slowly undergoing disorganization, without the presence of any other symptoms calculated to reveal the existence of formidable disease, than a discharge from the external auditory meatus; and that, consequently, no person suffering from catarrhal inflammation of the dermoid layer of the meatus, the membrana tympani, or of the mucous membrane of the tympanum, can be assured that disease is not being prolonged to the temporal bone, the brain, and its membranes; and that any ordinary exciting cause, as an attack of fever or influenza, a blow on the head, etc., may not induce the appearance of acute symptoms, which, as a general rule, are speedily fatal. Appended to the paper were tables, giving the particulars of sixty-five cases of disease extending from the ear to the brain, in which tables the duration of the chronic and acute symptoms, and the *post-mortem* appearances, were concisely detailed.

A Case of Obstruction of the Colon, relieved by an Operation performed at the Groin. By James Luke, Esq. (Communicated by James Moncrieff Arnott, Esq.) The subject of this report was a man aged sixty, who on December 16, 1850, first complained to the author of feeling generally unwell. He had no pain, but his countenance was depressed, his eyes sallow, and his tongue coated. The bowels were confined, and lately medicines had acted with difficulty on them. An aperient was ordered, and on the following day he passed a small lumpy motion, but without relief to the symptoms; castor-oil was ordered, but after a time was rejected by vomiting. On the 18th, there was no relief from the bowels; and he vomited everything he took. From this time, he progressively got worse, in spite of all the means resorted to for his relief. He complained of pain chiefly about the region of the cæcum. The transverse arch of the colon could be felt distended and tympanitic. A careful observation of the case had led the author to believe, that there was obstruction in the bowel about the sigmoid flexure of the colon, and it was resolved, as a last resource, to operate. The operation was performed on the 23rd. Mr. Luke opened the abdominal parietes near the groin, by an incision four inches in length, a little to the outside of the course of the epigastric artery, the lower extremity of which incision terminated a little above Poupart's ligament. The peritonæum was opened to about two inches. On passing the finger down the surface of the intestine, which now protruded, a diseased mass could be felt, which appeared to encircle the intestines. The bowel was then opened above this part; a large quantity of fæculent matter came away, and the patient expressed himself as relieved. On now passing the finger into the bowel, it was found to be impervious about two inches below the aperture.

After the operation, the recovery of the patient was rapid. On the second day, fæces passed *per anum*, and continued to do so for more than a month, when their passage through the natural opening ceased; it was again partially restored, but from this time the greater part of the fæces passed by the wound. This was closed by a well-fitted pad, and he had been enabled since to pursue his ordinary occupation almost without interruption.

The author then remarked on the danger of protracted delay in relieving such cases; a delay which is, however, to a great extent rendered necessary by the difficulties of diagnosis. The distension of the colon, and the evidence afforded by the proper introduction of the long tube, were pointed out as the two most accurate means for determining the seat of obstruction, when it is situated at the lower part of the colon. The advantages of the operations of Amussat and Littre were then compared, and the author, while admitting the advantage gained by operating in the loins, as proposed by the former—of not opening the peritonæal cavity—yet thought that the operation in the groin offered certain advantages. By the operation in the loins nothing more could be done than opening the intestine; but this might in some cases be improper—as where obstructions were produced by fibrous bands overlying the intestine, or by strangulations, the result of causes acting exteriorly to its tunics. In these cases, the proper treatment is to divide the bands, or relieve the cause of strangulation. In the event, too, of an error of diagnosis, the opening in the loins does not provide any facilities for correcting the error. The danger of total failure of affording relief, consequent upon this state of things, must therefore be attributable as a demerit to the operation in the loins. Besides, the opening cannot be conveniently attended to by the patient himself, and there exists frequently a great disposition to contraction, from the great depth of the wound, which requires renewed surgical interference. With the exception of the necessary peritonæal section, the operation of opening the abdominal parietes at the groin, in all cases of obstruction, or suspected obstruction, in the lower part of the colon, appeared to the author to be preferable. It affords facilities for modifying the treatment, either by opening the intestine, when incapable of relief by other means, or by dividing or removing any existing cause of strangulation. It enables the surgeon to extend his search within a limited range, in the event of the diagnosis proving incorrect; it allows him to open the bowel as close as possible to the seat of obstruction, and it secures to the patient the facilities for attending to his own comfort.

Abstract of a Paper on the Variations of the Sulphates and Phosphates excreted in Acute Chorea, Delirium Tremens, and Inflammation of the Brain. By H. Bence Jones, M.D., F.R.S. Having determined the variations of the sulphates in the states of health when different diets, amount of exercise, and medicines were taken, the variations of the sulphates in disease were examined. At the same time, the total amount of alkaline and earthy phosphates was determined, partly in order to see whether the amount of sulphates and of phosphates bore any relation to one another, and partly to test the conclusions which were drawn in the author's previous paper on the Variations of the Phosphates in Disease. The cases were thus classified:—

1st. Acute and chronic diseases, in which the muscular structures were chiefly affected, as chorea.

2nd. Functional diseases of the brain, as delirium tremens.

3rd. Acute inflammatory diseases of the nervous structures, as inflammation of the brain.

4th. Chronic diseases of the nervous structures.

5th. Acute diseases, in which neither the nervous nor the muscular structures were chiefly affected.

6th. Chronic diseases, in which neither the muscular nor the nervous structures were chiefly affected.

The three last classes gave only negative results.

In illustration of the first class, three cases of most intense chorea were detailed; the urine was examined frequently from the third to the eleventh day. The phosphates were diminished. The sulphates were present in very great excess. The urine was so loaded with urea, that nitrate of urea crystallized out before the urine was concentrated. The specific gravity of the urine was as high as 1036 in one case; 1035 in another; and, in the third, 1031.

In illustration of the second class, three cases of delirium tremens were given. The urine was examined from the fifth to the fourteenth day of the disease. The phosphates were not so remarkably diminished as in the cases reported in the previous paper. The sulphates were exceedingly increased. The amount of urea was so great, that nitric acid caused an instantaneous crystallization. The specific gravity was in one case, 1041; in another, 1037; and in the third, 1027. In other words, there was the most remarkable correspondence between the state of the urine in acute chorea and in delirium tremens.

In illustration of the third class, four cases of acute inflammation of the brain were given. The urine was examined from the fourth to the twenty-sixth day. Though the inflammation was not so intense as in those cases recorded in the author's previous paper, yet they confirmed the statement, that in inflammation of the brain the phosphates in the urine are increased; they also led to the conclusion, that the sulphates are at the same time increased in the same degree.

In conclusion, the author stated, that the phenomenon common to acute chorea and to intense delirium tremens is increased and unceasing muscular action. The muscles are highly complex organic compounds, in which sulphur exists in an unoxidized state, and the muscular action is accompanied, if not caused, by an action of oxygen, which, among other results, gives rise to the formation of sulphuric acid and urea, the amount of oxidation being proportioned to the intensity of the muscular action. The result produced is an increase of the sulphates and of the urea in the urine, just as in health they would be increased, if continued strong exercise were taken. The increased amount of urea does not constitute a disease resembling diabetes, but it is only an evidence of the changes taking place within. The increase of sulphates and phosphates in inflammation of the brain is also an evidence of increased oxidation of the nervous structures. These simultaneous variations depend on the fact, that the amount of sulphur in the brain is nearly the same as the amount of phosphorus. Thus, at one time, we have evidence of increased oxidation of the elements of the nervous structures, and at another time increased oxidation of the elements of the muscular structures; and we may thus conclude, that at one time the function of the nerves, and at another that of the muscles, is inordinately increased.

Successful Case of Ovariotomy. By John Beale, Esq. [Communicated by John Dalrymple, Esq., F.R.S.] The patient was a woman, aged 30, unmarried. The ovarian tumour was hard to the touch in the left iliac region and left hypochondrium, but soft and fluctuating on the opposite side, evidently in two distinct sacs, moveable, and not tender. It was removed on December 4, 1850, about a year after it was first perceived. The incision was ten inches in length, extending from the scrobiculus to the pubes. Two cysts were punctured, and their contents removed, before the tumour could be extracted; the pedicle was tied by a double ligature passed through its base, and the tumour was then separated as near as possible to it. The uterus and right ovary were healthy. Everything went on favourably; on the 15th Dec. she was able to walk about the room; and on the 25th, the ligature came away. The tumour was 3 ft. 2 in. in its largest cir-

cumference, and 2 ft. 1½ in. in its smallest ; it weighed 25 pounds ; it was multilocular, marked on the surface by bands of white fibrous tissue corresponding with the septa of the cysts. The cysts varied very much in size, and in the density and tenacity of their contents ; in the smaller ones, the fluid was clearer and thinner. The average specific gravity was 1010, but the fluid contained a very large quantity of albumen. The total amount of fluid was from 21 to 23 pints.

Development of a large Cyst containing Hydatids at the Root of the Neck : Death from Rupture of the Left Subclavian Artery. By James Dixon, Esq. J. M., aged 24, a waterman, was admitted into St. Thomas's Hospital, January 14th, 1851. Nine years previously, a swelling had formed above the left clavicle, which slowly increased, producing occasional numbness in the left arm. At a later period, there was total cessation of the pulse at the left wrist. The swelling seemed to rise from about the situation of the first rib, having in front the sterno-mastoid muscle and the carotid sheath. The larynx was pushed a little to the right, and the voice had become hoarse and weak. No sign of aneurism or of heart-disease could be detected. A very indistinct fluctuation was felt about an inch above the top of the sternum, between the inner edge of the sterno-mastoid muscle and the common carotid artery, which lay on the median plane. A drachm of clear colourless fluid was evacuated from this spot by pushing in a trocar. Some weeks later, an incision was made in the line between the sternal and clavicular portions of the sterno-mastoid, commencing an inch above the sternum. A fascia-like membrane was exposed beneath the muscles ; a trocar was passed in, and let out a few drops of colourless fluid. The opening was then enlarged towards the angle of the jaw, and a small collapsed hydatid escaped. The sac was large, and crowded with hydatids of various sizes. The wound was enlarged upwards ; a small amount of arterial hæmorrhage occurred, which was arrested by pressure. The pulsation in the left radial artery was felt after the operation. Hydatids, some whole (one being of the size of a hen's egg), and others in fragments, were discharged through the wound, which was kept open. The patient went on well, the discharge of hydatids having ceased for some days, until the 27th, when profuse bleeding suddenly occurred from the wound. Pressure was applied, and a bladder of ice laid on the part. A second jet of blood took place fourteen hours after the first ; a large hydatid, with a broad strip of sloughy fascia-like membrane, having been in the meantime voided. On the 28th, bleeding came on again ; and the patient died on the morning of the 29th.

The sac in which the hydatids had been developed was of a fascia-like texture, and lined with shreds of sloughy fibrin. It reached, vertically, from the left side of the third cervical vertebra to the convexity of the aortic arch and apex of the left lung ; and sideways from the middle line of the vertebral column to the scaleni muscles. Nearly the left half of the bodies of the fifth, sixth, and seventh cervical vertebræ, and of the second dorsal, had been absorbed ; as also the head and neck of the first and second ribs. On examining the interior of the sac, the left subclavian artery was laid bare at about three-quarters of an inch from its origin, and presented a rent in its coat rather more than half an inch in length. The pressure between the hydatid sac and the border of the first rib had totally obliterated the calibre of the vessel for about half an inch ; external to the scaleni it regained its proper dimensions. The left lung was healthy ; there were slight traces of recent pleuritis. A single collapsed hydatid remained in the sac. Those which, during the progress of the case, had escaped entire, were carefully examined with the microscope. In several of the size of pigeon's eggs, clusters of echinococci were found in various stages of development ; but neither in the largest, which was equal in bulk to a hen's egg, nor in those about the size of peas, could any of these bodies be discovered.

Statistical Report on Disease of the Heart, derived from a Consideration of all the Cases admitted into St. George's Hospital during the last two and a half years. By Dr. Barclay. Rheumatism was first considered as one of its causes. Divided into two nearly equal classes—those really inflammatory or acute, and those less so, or sub-acute—the former class was found to contain sixty-seven cases with cardiac lesion, sixty-four without, and twenty-one doubtful. Endocardial murmur was found not to be certain evidence of disease, even in the most acute cases. Females were slightly more liable to acute rheumatism than males, but less liable to a recurrence of the disease. Females were more decidedly liable in a larger proportion to cardiac complication, and this was especially proved by the existence of friction-sound in the proportion of three females to two males. Cardiac complication existed eighteen or twenty per cent. more frequently in subsequent attacks than in primary ones. It was in the proportion of three to two of all the cases up to the age of twenty-five, and fell very rapidly after that age. The cases of sub-acute and chronic rheumatism furnished no examples of recent inflammation of the heart, but a considerable number of cases of old disease. So far as could be ascertained, these were almost all traceable to previous acute attacks, and were only about one-third of the cases which had previously suffered from acute rheumatism. The post-mortem appearances of recent inflammation were found associated with acute rheumatism, with disease of the kidney, with inflammation of the peritoneum and pleura, and with old disease of the heart, especially when hypertrophy existed, and with turbulent action during life. The cases of old disease of the heart were divided into sixty-one rheumatic, seventy non-rheumatic, and sixty-nine doubtful. They showed a very considerable preponderance of males, especially among fatal cases. Up to the age of twenty, almost the whole, and even as far as thirty, more than half the cases, were associated with acute rheumatism. In the next twenty years, the non-rheumatic almost doubled the rheumatic cases, and after fifty, there were scarcely any derivable from rheumatism at all. The duration of rheumatic cases, dating from the first attack of acute rheumatism to death, was generally much longer for females than for males, varying in the latter from four to six years; in the former, from twelve to sixteen years. Four out of seven fatal cases of acute rheumatism, and twelve out of eighteen of older standing, were associated with pericarditis, which was always severe and extensive; but universal adhesion was neither the constant nor even the common result of rheumatic pericarditis, and it existed in cases where the previous existence of rheumatism was altogether denied. In valvular disease there were eighteen rheumatic cases, twenty-three non-rheumatic, and twelve doubtful. The recent cases were all examples of inflammation of the mitral valve. When old and recent disease existed together, and when old disease was seen in different stages, the mitral valve generally appeared to have been first attacked, and the aortic secondarily; and hence the preponderance of double valvular lesion in rheumatic cases, seemed to be due to renewed inflammations at distinct periods. Inflammatory thickening occurred also in several cases in which there had been no rheumatism. Disease of the kidney was associated with two cases of simple recent fibrinous deposit on the valves, and three of recent pericarditis, in which no other cause was known to have been in operation. It seemed questionable how far this could be taken as a cause of great thickening of the valves, or of an adherent pericardium. Disease of each set of valves seemed to produce, in nearly equal proportions, hypertrophy and dilatation, but aortic regurgitation especially the latter; atheroma of the aorta, more commonly hypertrophy; adhesion of the pericardium, chiefly dilatation. Disease of the kidney was associated with an immense majority of the cases of hypertrophy, and similarly of all the cases of disease of the kidney; more than a third presented on post-mortem examination more or less of hypertrophy of the heart. A table was appended, in which

the post-mortem appearances were arranged, of all the cases in which the clinical history threw any light on the lesion of the heart found after death.

Case of Epilepsy treated by Tracheotomy. By W. H. Cane, Esq. [Communicated, with Observations, by Marshall Hall, M.D., F.R.S.] Dr. Marshall Hall had suggested on several occasions, and especially in a conversation with Mr. Cane, that as the attack of epileptic or other *convulsion* implied closure of the larynx, with expiratory efforts, the attack of convulsive epilepsy would be prevented by tracheotomy. Mr. Cane was summoned, on Feb. 1, 1851, to the case of a boatman, aged 24, who had become subject to violent fits of epilepsy, one of which had just occurred in so extreme a form as to leave him in a state of deep apoplectic coma and asphyxia, inspiration being performed only "by seldom and short catches, whilst the veins of the head and neck were everywhere visible and greatly distended." This state had continued nineteen hours. "Feeling convinced," Mr. Cane observes, "that the patient must shortly expire, and that the root of the evil was in the closure of the larynx, I at once proceeded to open the trachea, a matter of no small difficulty, on account of the twisted state of the neck, the engorged state of the vessels, and the constant action of the muscles. The operation of tracheotomy was performed, and the tracheal tube is kept in the trachea to the present time. The relief to the patient was immediate; the air passed into the lungs, the state of spasm subsided, with the turgid condition of the head and neck, and the patient soon recovered his sensibility This was not the only gratifying result: although the poor man had experienced his epileptic seizures in increasing violence during seven or eight years, and recently thrice a week, he had, on April 1st, during two months, had no return of them. More recent accounts of the patient, who is now in Staffordshire, confirmed the former report; the tube is still kept in the trachea, and the epileptic seizures have not recurred.

Case of Organized Polypus of the Heart. By Thomas Bell Elcock Fletcher, M.D., Physician to the General Hospital, Birmingham. The patient in whom this morbid appearance was found, was a female, thirty-four years old, admitted under the author's care, at the General Dispensary, in October 1842, with symptoms of heart-disease of some years' duration. She had had rheumatism when eight years old, and her health had since been always feeble. Examination of the chest showed that there was considerable enlargement of the heart, and its action was violent; its beat was audible at some distance from the patient. The first sound was prolonged, but of a sharp tone, and was heard most intensely at the level, and two inches to the left side, of the left nipple. There was dulness on percussion, and bronchial respiration at the base of the left lung anteriorly; elsewhere respiration was natural. The liver appeared to be enlarged. The patient was relieved by elaterium, in various combinations, and afterwards took steel and digitalis with advantage, and in a month was dismissed from her attendance at the dispensary. Early in December she relapsed, and died in the course of a few days. The sound of the heart for the last few days was audible at four yards' distance; her friends stated they could hear it in the room below. It appeared to the author to be superficial, inducing the belief that it depended upon the doubling of an adhesion of the pericardium. After death, fluid was found in the right pleura, and in each lung a patch of hæmorrhagic deposit. No adhesions of the pericardium existed. There was considerable dilatation of all the cavities of the heart, especially on the right side. The foramen ovale admitted the point of the little finger, and about half an inch below its orifice in the left auricle, there was attached, by a narrow pedicle, a polypus, two inches long and three in circumference, which projected through the mitral orifice into the left ventricle. This polypus appeared to be covered by a membrane continuous with the endocardium, and had a cavity in its centre, the size of a small nut, containing bloody serum.

Remarks on a Peculiar Appearance observed in the Gums of Consumptive Patients. By Theophilus Thompson, M.D., F.R.S. The author, after glancing at the risk of allowing the study of auscultation to supersede attention to general symptoms, referred to the discovery communicated to the Society by the late Dr. Burton, of a blue line at the edge of the gums, as indicative of the presence of lead, and thence derived an encouragement to the examination of this part of the system, when there is reason to suspect any poisoned or morbid condition of the blood. He then presented the results of his observations in reference to this inquiry in cases of consumption, and avowed his conviction of the frequent existence in phthisical subjects of a mark at the reflected edge of the gums, deeper in colour than the adjoining surface; in some patients a mere streak on a raised border, in others, a margin more than a line in breadth, of a vermilion tint, inclining to lake: the mark being most distinct around the lower incisors, but usually observable in both jaws, and often around the molar, but modified in its situation by the form of the mouth. The author had examined some hundred cases in the course of the investigation, and gave the analysis of 102, of whom he had full records. In forty of forty-eight women, the gingival margin was present; and in fifty-four phthisical men, although in a few the line was so faint as to be open to question, there was only one in whom it could be considered decidedly absent. He had reasons for suspecting that the same condition of the system which produces this state of the gums tends also to produce clubbing of the fingers; but he considered that the change in the extremity of the fingers rarely occured till some time after the streak is manifest in the gums. Of seventy-six patients, forty-five were found to have clubbed fingers; of these forty-five, only one had gums free from the characteristic margin; yet twenty of the seventy-six had marginated gums, but no expansion of the extremities of the fingers. The author discussed the effect of various modifying influences, such as hereditary tendency, catamenial disturbances, and habits as respects cleanliness, but could not connect the presence of the symptoms in question with any of these circumstances; but he was of opinion that causes which irritate the mucous membrane tend to accelerate and increase the manifestation of the margin. He suggested this as an explanation of the more frequent absence of the line in women than in men, and dwelt on its practical importance, as indicating, in such cases, the use of refrigerants, as preliminary to the introduction of tonic remedies. The author canvassed the question whether a similar line existed in any other disease; he allowed that M. Fredericq may be correct in the opinion that certain changes in the gums occur towards the close of various chronic diseases, but he had never yet observed the peculiar margin described in this communication, without detecting other indications of consumption, although frequently only incipient. As respects prognosis in phthisis, he proposed the general rule, that cases in which the streak is observed early, or is broad or deep-coloured, tend to proceed more rapidly than those in which it was absent or slight; whilst freedom from the streak, even in the third stage, afforded encouragement in treatment. In reference to diagnosis, the author believes,—1st. That the absence of the streak in men affected with inconclusive symptoms of phthisis, may incline us to a favourable interpretation of any such suspicious indications; but that in women, rather less weight is to be attributed to this negative sign. 2nd. That the presence of the sign in women is almost conclusive evidence of the presence of the tubercular element in the blood. The paper concludes with the remark, that the symptom therein described is one of many proofs that consumption is *not exclusively a local disease, but rather a constitutional condition*, requiring for its elucidation and treatment far more than an acquaintance, however exact, with the phenomena of auscultation.

SURGICAL SOCIETY OF IRELAND.

December 7, 1850.

Mr. Trant, in the Chair.

Case of Polypus Uteri. By Dr. Banon. Dr. Banon exhibited a polypus uteri, which he had just removed from a lady, aged 74, who had suffered severely from hæmorrhage. Dr. Banon and Mr. Carte removed the tumour, by passing a needle armed with a double ligature through its centre, and tying it on either side so as to strangulate the vessels, then removing the polypus by a blunt-pointed curved bistoury. Scarcely any hæmorrhage attended the operation ; and the patient was quite free from unpleasant symptoms on the fourteenth day.

Cancerous Tumour removed from the Orbit. By Dr. Jacob. Dr. Jacob exhibited a dissection of a tumour, lately removed from the orbit of a man in the City of Dublin Hospital. He had lost the eye many years ago, but suffered no pain until about a year since, when the contents of the orbit began to enlarge, and continued to increase. The tumour projected beyond the cavity so far, as to stretch the upper lid, which still covered it. Its surface was covered with a network of vessels, and was irregularly knobbed ; it bled slightly when pressed or handled, and felt hard and inelastic. He suffered severely from paroxysms of intolerable pain at night, requiring opiates for its alleviation. The tumour was easily removed. A bistoury was passed under the outer canthus for about an inch, and pushed through the skin, so as to allow the lids to be separated freely, after which the blade of a common scalpel was carried round the orbit between the bone and the tumour, and through the soft parts in the bottom, so as to extricate the entire mass as far as possible. The bleeding, at first considerable, nearly ceased in a short time, and the orbit was filled with lint. There was some oozing of blood the night of the operation, and so much the following day as to require the application of fresh dressings, the patient being at the same time much prostrated ; but he had since rallied.

The dissection of the tumour displayed the progress of malignant disease amongst parts of diverse character. The original structures partly retained their natural organisation in the midst of the diseased mass. The eyeball, shrunk to a mere button, as it usually is when the cornea has been destroyed and the humours of the eye allowed to escape, still appeared sound ; the sclerotic being white and fibrous, and the choroid being still visible ; the optic nerve, too, although shrunk and wasted, was distinct for half an inch. The muscles, however, were thickened and greatly enlarged. On one side lay a distinct hard tumour the size of a large hazel-nut, and on the other a softer, but still a firm one, evidently the lachrymal gland, four or five times its natural size. The disease was evidently carcinomatous or scirrhous, although in some parts apparently assuming somewhat the encephaloid character, and even yielding a creamy material on pressure. The small hard tumour was in part of nearly cartilaginous density, but the lachrymal gland was not much firmer than natural, although less granular. The appearances afforded little hope of escape from the extension of the specific disease ; but as scirrhus in this situation may arise in the conjunctival covering of the eye, and may therefore be superficial, the operation was called for ; and especially, as the poor man suffered dreadful torture from the pressure of the tumour and consequent stretching of the nerves. Dr. Jacob had seen so many tumours of the orbit of non-malignant nature, and so many recoveries after removals of very doubtful ones, that he considered himself justified in affording this man the chance which extirpation afforded ; but it was only a chance.

Case of Poisoning by Chloroform. By Dr. Bagot. Dr. Bagot related the case of a young lady, to whom he had been called ten hours and a half after the administration of from a drachm and a half to two drachms of

chloroform, to allay neuralgic pains of the face. His first visit was made at half-past ten p.m. The symptoms under which she laboured were those of coma. She was lying on her left side, perfectly unconscious of all around her, her eyelids closed ; on raising the lids, the eyeballs appeared much suffused, the pupils irregular, and scarcely acted upon by light. There was considerable congestion about her face, and her head felt hot; the surface of the body and legs was cold ; the pulse was 90, thready, irregular, and intermittent. Up to seven o'clock, her friends had not found much difficulty in arousing her, although she soon relapsed into the same state. Since that hour it had been much more difficult to dispel the stupor, and it was only after many endeavours that Dr. Bagot was able to do so. When roused, however, she intelligently answered a question, but after some hesitation, as if endeavouring to collect her thoughts. She then almost immediately sunk into the same comatose state, having first said that she knew that she was dying. Two or three times during the day she had shown hysterical symptoms, crying when moved, and having the same thought of approaching dissolution before her mind. Her bowels (habitually confined) had not been moved for three days.

The treatment consisted in the admission of fresh air, strong carbonate of ammonia to her nose, an occasional sprinkle of cold water over the face, and stupes of hot water, containing an abundance of mustard, to the feet and legs. As soon as she could swallow, he gave her draughts of ether and aromatic spirits of ammonia ; and in about two hours, when the urgent symptoms were relieved, and reaction had set in, she took some strong tea, by which she was much benefited. She also had a draught containing one drop of croton oil, which affected her bowels in seven hours. As she recovered from the effects of the chloroform, the neuralgic pains returned to her face with great violence.

Next morning, she informed Dr. Bagot that she had passed a wakeful night, and had suffered much from headache, which was confined to the right temple. This pain continuing through the day, he applied two leeches to her temple, which gave immediate relief ; she was enabled for the first time to turn off her left side. She was much weakened by this illness, and fainted at her first attempt to sit up in bed, where she was obliged to remain some days.

December 21, 1850.

Dr. Jacob in the Chair.

On a Functional Affection of the Spine, liable to be mistaken for Organic Disease. By Henry Kennedy, A.B., M.R.I.A. The affection alluded to was essentially a disease of the young, being seen most frequently between twelve and twenty years of age. Dr. Kennedy had, however, met with it as early as nine years, and as late as twenty-five. He had only seen it in private practice, and it was more common amongst males than females, in the proportion of at least two to one. It consisted in a pain in the back, combined with weakness, and this was always referred to the lumbar region ; at least he had never seen it higher up. This pain commenced gradually, and might or might not be attended with the feeling of weakness ; and occasionally only the latter was complained of. On examining the spine, the patient was nearly always able to refer the suffering to a particular part ; but Dr. Kennedy had seen cases where the feeling was more diffused. It was worthy of notice, that a rough examination of the part might be made—the spine might be twisted, or percussion strongly used, and yet the patient would not complain. When left to their own feelings, they invariably preferred the recumbent posture. Walking was much less irksome than sitting, and particularly when they had no support for the back. In addition to an ordinary chair, they would use a cushion, so that it might press on the spine where they complained ; and even when reclining at full length, they often placed a cushion in the hollow of the back, so

as to cause direct pressure. Those whose business led them to stand and work at a desk, seemed peculiarly liable to the affection.

Case 1. Mr. ——, a young gentleman of 18, whose employment was in an office in Dublin, where he spent six or seven hours a day, partly standing and partly sitting at a desk, began to suffer from pain in the small of the back. He was of small size, but of a highly developed nervous system, as was shown when he laboured under any common indisposition ; as, for instance, a cold. The pain in the back was trifling at first, though constant ; so that he was able to pursue his usual avocations for about four months ; when it became so distressing that he was compelled to confine himself to a sofa the greater portion of the day, and when he did sit up, he always used a cushion between his back and the chair. On examination, nothing wrong could be detected with the part of the spine of which he complained most ; which was about the third lumbar vertebra. It could be twisted, and otherwise roughly handled, without causing any inconvenience, but he could not sit without support beyond a few moments. When he had any inducement, he could go through an amount of exertion on his feet, which seemed totally incompatible with the other symptoms. His general health appeared good ; his tongue clean ; his appetite not impaired. He continued in this state for four months, during which time he was seen by the late Mr. Carmichael, and a variety of treatment was adopted. In two months more he had recovered so far as to be able to resume his business, and at a still later period recovered completely ; nor had he since, though some years had passed, suffered from the same affection.

Case 2. A brother of the last patient, at the age of 21, began to suffer from pain in the back, attended by a feeling of weakness. He was also in an office where both standing and sitting at a desk was necessary ; but it was in a country town. At first it was merely an inconvenience ; by degrees, however, it became worse, so that he could scarcely go through his duties, and finally he came to Dublin for advice. He was seen by Mr. Cusack and Dr. Kennedy, and the symptoms were exactly those detailed in the last case, but not so severe. In this instance there were some signs of dyspepsia. After a certain period, not so long as in the former instance, this patient also got well, and had remained free of any suffering from his back, a period of five years having elapsed.

With regard to the *nature* of this affection, Dr. Kennedy was inclined to say—though it be anything but proved—that it arose from causes incident to the period of life at which it occured, conjoined with some obscure derangement of the general health. But this was but conjecture.

The *diagnosis* was of some moment ; for the symptoms might lead one to dread the existence of serious disease ; or it might be confounded with an organic disease. A young lady, while abroad, got the affection. She was advised to keep the recumbent posture, and to have issues put in. This advice was persevered in for some months, when she was brought home, and seen by Sir Philip Crampton, who at once ordered the issues to be dried, and the patient to get up, and go about. This was done, and the lady recovered, though slowly ; for her general health had been injured by her long confinement. The diagnosis would, probably, turn on the presence or absence of constitutional symptoms ; such as a quick pulse, night sweats, etc. In addition, even a rough examination of the spine did not cause any pain to the patient—a marked contrast between the two cases ; and lastly, the situation afforded some assistance ; for in the one affection it was, as far as Dr. Kennedy had seen, always in the lumbar region, and sometimes even at one side of the vertebral column ; while in the other, organic disease was not probably so common here as higher up.

The *prognosis* is favourable. The patient will get well ; but his recovery will occupy some time. Dr. Kennedy had seen no instance where the affection was completely got rid of under six months ; and in some of the cases it was much longer. It sometimes returned after the patient had been well for

months. To say that no case could run into more serious disease, would be going farther than prudence would justify; for in truth this affection, when well-marked, was sufficiently distressing. But Dr. Kennedy had not met any case of the sort. In one instance, indeed, a patient laboured under it when she was between eleven and twelve years of age. She recovered perfectly, but about two years subsequently was attacked with caries of the cervical vertebræ, which ultimately proved fatal by the disease extending to the membranes of the brain. With this exception—and it was not a case exactly in point—he had known no fatal results in connexion with that form of spinal affection under notice.

On the subject of treatment, Dr. Kennedy had nothing very definite to offer. A considerable variety of means had been used, both local and constitutional. The former included local bleedings, dry cupping, blisters, frictions, the cold douche, and galvanism; and the latter, aperients, tonics, change of air, and relaxation from business. Of these two, the latter had in his experience proved by much the most useful. He had also seen benefit follow the application of small and repeated blisters, as also the use of a weak stream of galvanism, applied daily, or every second day, according to circumstances. The patient, too, often got great relief from wearing a stiff belt. Still the general measures were the more important. In all the severer cases, the patient must give up his business for a time; two to three months complete relaxation must be enjoined, and if the patient could change his air, so much the better. Exercise, more or less, according to circumstances, should be advised to be taken daily; not, of course, to be carried to fatigue: at the same time that the patient, while at rest, might with advantage assume the horizontal position, propped up or supported in the way most agreeable to him. Strict confinement would generally do much more harm than good. Besides relaxation from business, and change of air, the cold douche, frictions, etc., were worthy of trial. As to medicines, Dr. Kennedy had tried a number, more particularly those of the tonic class; excepting strychnine, however, from which in some cases benefit had arisen, they appeared to produce little or no effect.

Effects of Rupture of the Cicatrix of a Burn. By Dr. Bagot. Some time since, a woman brought to him a little boy, about nine years old, who had got his arm contracted by cicatrix after a burn. He (Dr. Bagot) advised the woman to take the child to an hospital. A day or two after, the boy was running along the street, when he fell. In falling, the hand was caught by some obstacle, and the cicatrix was suddenly torn. This injury was followed by a great effusion of blood. The wound was again allowed to heal without the intervention of medical aid; the cicatrix following that wound never contracted in the slightest degree, and the boy has now the perfect use of his arm.

Case of Abscess in the Anterior Wall of the Uterus. By Dr. Moss. About seven months since, Dr. Moss was sent for to see a lady, who was suddenly taken with severe cramps in the abdomen and difficulty in passing water, weak pulse, and general febrile symptoms. He directed an enema to be given speedily, with anodyne draughts afterwards, unless there was speedy relief. In the morning, he found that, though considerable relief was given, it had not been complete. He then made a vaginal examination; and, on introducing the finger, he found a tumour pressing downwards, which had dragged down the posterior part of the bladder He then got the assistance of Dr. Johnson, who found his (Dr. Moss's) diagnosis correct. He feared it was a fibrous tumour, and determined, if possible, to force the tumour back again. He did so, and it left the passage clear, and the os resumed its proper position. From that time, however, up to last week, the patient had suffered a variety of pains, all in the same region. The bowels, however, had been kept regular. Last week he was sent for suddenly to go and see the lady again. She informed him, that she had passed half a wineglassful of what,

on inspection, seemed to be healthy-looking pus, from the vagina. He found part of the tumour still existing, but softer. On using the speculum, he found the pus coming directly from the os, so that he presumed there was an abscess of an indolent character forming for some time. The patient had had considerable relief; but he rather feared the tumour was again filling, though he hoped he would be able, by making an opening, to give permanent relief.

January 11, 1851.

Dr. Beatty, and afterwards Dr. Jacob, in the Chair.

Remarkable Specimen of Colloid Degeneration springing from the Forearm. By the Secretary. Case. T. D., aged 65, was admitted into the Athy Infirmary on the 19th of December, 1850, for dysentery. He had a large tumour on his forearm of (he said) six months' growth, which never gave him pain, but, from its magnitude, caused great inconvenience. He was treated for the bowel complaint with the usual remedies, but died on the 30th of December, eleven days from his admission.

Inspection of the Body, twenty-four hours after death. The spleen and kidneys were enlarged, the latter to three times their normal size; the former weighed about three pounds. On cutting into them, they presented well-marked cerebriform matter. The liver was enlarged, but did not present any such appearance. The intestines were much congested throughout; the large intestines had ulcers in different parts, and one very large one near the head of the colon. He had never manifested any symptoms of disease of the brain or chest: the examination was therefore confined to the abdomen. The tumour occupied the anterior aspect of the forearm, extending from the bend of the elbow to the base of the metacarpal bone of the thumb, measuring in its longitudinal direction 19 inches, and in its circumference 33 inches. It weighed 25lbs. 8oz. The integument covering it was of a dusky yellow colour, traversed by numerous large and tortuous veins. It was uneven on its surface, and on its most prominent parts gave an elastic fluctuating sensation, as of a fluid in a dense cyst, much more distinct in some points than in others. The muscles of the forearm (particularly those arising from the internal condyle) were of a yellowish colour, much atrophied, and spread out in a ribbon-like manner over the surface of the tumour; their tendons formed grooves in its surface. The fingers were permanently flexed on the palm; the interspaces between the tendons forming the elastic fluctuating prominences alluded to above. The subcutaneous cellular tissue had in some places been absorbed, the true skin being intimately connected to the walls of the tumour. The arteries of the forearm, which had been previously injected, appeared to have resisted the disease. The nervous trunks generally were enlarged in size, especially the median, which was stretched and flattened in its course over the surface of the tumour. The sac was found to consist of a thick gelatinous wall, very rugged on its inner surface, from masses of the jelly-form substance protruding inwards; it was filled to distension by a dark brownish fluid, very like liquid glue or thin treacle. The disease appeared to have originated in the radius, as the central portion of the shaft of this bone was completely removed; but the rough and spiculated ends of its upper and lower extremities projected into the cyst, whilst the ulna, though flattened and slightly bent, was sound throughout. The elbow and wrist were quite free.

Microscopic Examination. A thin section of the morbid structure presented a fibrous stroma, the interspaces or loculi of which contained congregated cells of different shapes, some caudate, others fusiform, but most of them oval or round, with nuclei. Acetic acid rendered the fibrous stroma somewhat more distinct, but decidedly brought more clearly into view the nuclei and nucleoli of the cells. Some compound granular cells and fat granules were scattered in small groups, amidst a great quantity of granules and molecules. The colloid fluid presented numerous very delicate cells,

rendered transparent on the addition of acetic acid, thus exposing their nuclei; but no fibrous arrangement (though diligently sought for) was detected in this fluid part; it contained naked nuclei, and some oil-globules, with an abundance of molecular matter. The blood from the cephalic vein, microscopically examined, appeared of a glutinous nature, by which was meant a decided tendency to form tags or tails as the corpuscles glided between the glasses.

Case of Simulated Neuralgia from a common Pin, which had been swallowed, and in eight months after emerged from the surface of the body. By H. C. Field, M.D. After some remarks on the cases in which pins have been said to have been swallowed, or thrust into parts of the body, Dr. Field related the following case.

Case. Mary M., a healthy woman, aged 30, in July 1842, came to the Stillorgan Dispensary. She said her mouth had been full of pins: that she had accidentally swallowed one, which was choking. Dr. Field immediately relieved her by using a probang. In the following October, he was requested to visit her as a dispensary patient; she then told him that she was in the greatest agony in her hip-joint, extending down the limb on the same side. He immediately bled her largely from the arm, had her cupped over the seat of pain, and gave her two grains of opium. The next day, she had had some short sleep, but the pain was still very great. After exhausting every means he could think of, narcotising, mercurialising, blistering, and tonics, Dr. Field at length advised her to try an hospital. After submitting to various remedies in Steevens' Hospital, without more than temporary relief, she was advised to go into the country for change of air, being greatly emaciated. She came again, dreadfully reduced in flesh, to the country, where Dr. Field saw her, but did nothing for her; and after remaining some time at home, suffering still from what appeared to be severe neuralgia, and being much reduced, she one day felt a sudden remission of the pain, and three days after it left her. From this time she rapidly recovered her health and strength, and was soon able to leave her bed. Shortly after, she found what she called a sore pimple on the inside of her thigh, which she poulticed and plastered, but could not cure; and having quite regained her strength, after an illness of *eight months*, she walked to the dispensary. On examining the pimple, Dr. Field found in its centre a sharp point; and after a little, he extracted, by its point, a large pin. Dr. Field thought that the simulation of idiopathic disease, for so long a time by a foreign body, rendered it extremely interesting, and established the *possibility* of a common pin, after being swallowed, emerging from the surface of the body.

MISCELLANEOUS INTELLIGENCE.

Dinner at St. Bartholomew's Hospital. During last month, the President, Treasurer, and Governors, gave their Annual Dinner in the hall of the Hospital. Upwards of two hundred gentlemen were present, comprising the Almoners, many of the Governors, and Medical Officers. General Sir George Pollock honoured the governors with his presence. There were also as guests many of the distinguished foreign physicians and surgeons now on a visit to London; among whom may be mentioned Dr. Warren of Boston, U. S., Dr. Pantaleoni of Rome, Professor Jaëger of Vienna, Dr. Donders of Utrecht, and Dr. Hannover of Copenhagen.

Physiological Society of Edinburgh. A new society with this name was instituted at Edinburgh, on the 4th of June: "having for its object the investigation of the structure and functions of all organized beings, in their healthy and diseased conditions." The following gentlemen were appointed office-bearers: — President, Professor Hughes Bennett; Vice-Presidents, Mr. Zaglas and Mr. J. S. Sanderson: Secretaries, Dr. W. T.

Gairdner, and Mr. John Barlow. A society called "the Anatomical and Physiological Society" formerly existed in Edinburgh ; but was at last absorbed by the Medico-Chirurgical.

Insurance Offices and the Medical Profession. The *Medical Times* publishes the following as a correct list of the companies who do not demean themselves by seeking gratuitous advice. The fee paid by the New Equitable is *two guineas*. We believe that the great success of this and other new companies is mainly due to the energetic support which they are receiving from medical men. The older societies however are now reaping the advantage of following the good example of their youthful rivals. The subjoined list embraces most of the trustworthy insurance companies in England.

Architects—69, Lombard-street, London.
Britannia—1, Princes-street, Bank, London.
British Mutual—17, New Bridge-street, Blackfriars.
Church of England—Lothbury.
Commercial—112, Cheapside, London.
East of Scotland—1, Bank-street, Dundee.
East of England Mutual—Cheapside.
Engineers', Masonic, and Universal—345, Strand.
English and Scottish Law—12, Waterloo-place, London.
English Widows' Fund—67, Fleet-street.
European Life Insurance and Annuity Company—10, Chatham-place, Blackfriars.
General and Mining—4, Bridge-street, Blackfriars.
General Benefit—4, Farringdon-street.
Great Britain—Waterloo-place, and King William-street.
Indian and London—King William-street, and 14, Waterloo-place.
Industrial and General—2, Waterloo-place, Pall-Mall.
Kent Mutual—High-street, Rochester.
Kent Mutual Life Assurance Society—6, Old Jewry, London.
Leeds and Yorkshire—Commercial-buildings, Leeds
Legal and Commercial—73, Cheapside.
London Indisputable—31, Lombard-street.
London Mutual Life—63, Moorgate-street, City.
London and Provincial—39, Nicholas-lane.
Medical, Legal, and General—126, Strand.
Medical, Invalid, and General—25, Pall-Mall.
Mentor—2, Old Broad-street.
Metropolitan and General—27, Regent-street, Waterloo-place
Mitre—23, Pall-Mall.
National Loan Fund and Life Assurance—26, Cornhill.
National Mercantile—Poultry, Mansion-house.
New Equitable Assurance Company—450, West Strand.
North of England—11, Cheapside, London; and Old Haymarket, Sheffield.
Northern Assurance—1, Moorgate-street.
Norwich Union—Crescent, New Bridge-street.
Professional—76, Cheapside.
Prudential—14, Chatham-place.
Royal—Royal Insurance-buildings, Liverpool.
Royal Exchange—Royal Exchange.
Royal Farmers' and General—346, Strand.
Scottish Equitable—26, St. Andrew's-square, Edinburgh.
Solicitors' and General—57, Chancery-lane.
Sovereign, 5, St. James's-street.
Star, 44, Moorgate-street.
Westminster and General—27, King-street, Covent-garden.
Yorkshire—York.

Hospital Villages of Iron.—Dr. Simpson, of Edinburgh, in concluding one of his interesting Reports of the Maternity Hospital of that city, makes some important remarks on the evils of crowding the sick in hospitals, and suggests the construction of cottages or villages of iron, as a substitute for our "Hospital Palaces". We quote the passage entire.

"The convalescence of the hospital patients was often interrupted by febrile and inflammatory attacks. The house, No. 3, St. John-street, used as a hospital, was, in addition to a sunk kitchen flat, three stories in height, with two rooms in the first and second flats, and three in the third; and it was much too small for the accommodation of the patients, and of the resident house-surgeons, matron, etc. The rooms themselves were low-roofed, and very imperfectly ventilated. Various plans were attempted to improve the ventilation, but not with much success. Whenever the hospital became in any degree crowded, fevers (or weeds), with more or less abdominal tenderness, appeared among the patients; and frequently the supervention of such attacks during convalescence became so common, as to constitute the rule rather than the exception to it. Every one acquainted with hospital practice, whether obstetric, surgical, or medical, is well aware of the great liability among the patients to febrile and inflammatory attacks whenever the wards are overcrowded; and in no practice is this more visible than in midwifery. Indeed, I believe, there are few or no circumstances which would contribute more to save surgical and obstetric patients from phlebitic and other analogous disorders, than a total change in the present system of hospital practice. I have often stated and taught, that if our present medical, surgical, and obstetric hospitals were changed from being crowded palaces, with a layer of sick at each flat, into villages or cottages, with one, or at most two, patients in each room, a great saving of human life would be effected. And if the village were constructed of iron (as is sometimes now done for other purposes), instead of brick or stone, it could be taken down and rebuilt every few years; a matter apparently of much moment in hospital hygiene. Besides, the value of the material would not greatly deteriorate from use; the principal outlay would be in the first cost of it. It could be erected in any vacant space or spaces of ground, within or around a city, that chanced to be unoccupied; and, in cases of epidemics, the accommodation could always be at once and readily increased."

The Best Field for Surgical Observation. Dr. Moses Buchanan stated in 1844 (Introductory Lecture: Glasgow, 1844), that the Glasgow Royal Infirmary was the best surgical school in the world. "It will be found," he said, "to present at all times the most important gallery of acute surgical disease of any in the world." The same claim was reiterated by Dr. Easton in his Introductory Lecture, delivered on the 29th November, 1849 (and reviewed by us in our volume for 1850, p. 144). It appears, however, that the Glasgow lecturers, who had up to this date, held unchallenged the surgical supremacy of the world, are no longer to be allowed to do so. Mr. Syme, of Edinburgh, after a ten days' absence, thus addressed his class: "Gentlemen, I regret my absence for the last ten days, but I hope that the information acquired since I saw you, will conduce to the object we all have in view. I have long suspected, and am now fully satisfied, that neither Paris nor London possesses any hospital which affords so good a field for surgical observation as the Royal Infirmary of Edinburgh. The knowledge of this fact should stimulate your exertions, and prevent them from being relaxed through the vain expectation of elsewhere finding a better opportunity for practical study, while it greatly encourages me to cultivate with redoubled energy the valuable means of instruction placed within my reach." *Edinburgh Monthly Journal*, July 1851, pp. 53, 54.

Sir B. C. Brodie, Baronet, had the honorary degree of D.C.L. conferred upon him on the 3rd July, by the University of Oxford.

College of Physicians.—A Conversazione was given by the President and Fellows on Saturday, June 28, at the College, Pall-Mall East. The visitors were received by Dr. Paris, President of the College, in the Censors' room, and afterwards passed into the Library, upon the tables of which were rare books and ingenious philosophical instruments. Among the company were the Bishops of Manchester, St. Asaph, Chester, and Oxford; the Earl of Harrowby; the Earl of Rosse; Lord de Mauley; Lord Colborne; the Lord Chief-Baron; Mr. Baron Parke; Mr. Justice Coleridge; the Vice-Chancellor; M. Majendie; Professor Otto; Baron Dunckink Holmfeld; Moonshee Syed Abdoollah; Senor Don Joaquin Alfonso; Professors Daubeny, Graham, Wheatstone, Owen; Sir D. Brewster; Sir C. Fellows; Sir J. South; Sir H. Ellis; Sir H. De la Beche; Sir A. Knight, M.D.; Sir W. Newton; Sir C. Clarke, M.D.; Archdeacons Hale, Sinclair, Robinson, and Brooks; Rev. Dr. Major; Dr. R. Bright; Dr. C. Locock; Dr. R. Ferguson; Dr. Marshall Hall, etc. Refreshments upon the most liberal scale were provided. The company broke up shortly after eleven. Another conversazione will take place before the close of the season.

Pharmacy Bill. Mr. Jacob Bell of Oxford-street, recently introduced a measure into Parliament for the purpose of elevating the druggists into the rank of professional men. It was read *pro forma* a second time in the House of Commons; and was then delayed till next Session. The measure is not likely to be supported by the medical profession. As St. Alban's, the burgh for which Mr. Bell sits, may be disfranchised (for the abominable way in which the electors took bribes at the last election); and as a general election is soon expected, the bill is likely to require another guardian.

Provincial Medical and Surgical Association. The Nineteenth Anniversary Meeting of the Provincial Medical and Surgical Association will be held at Brighton, on Wednesday the 13th, and Thursday the 14th of August next. Dr. G. S. Jenks is the president elect, and the address on Surgery will be delivered by Mr. Benjamin Vallance of Brighton; that on Medicine by Dr. William King. Dr. Mantell will lecture on the Medical Topography of Sussex, with copious illustrations. The meeting is expected to be one of unusual interest and importance; and many of the élite of the profession in London are expected to attend.

New Lunatic Asylum at Colney Hatch. This new asylum for the county of Middlesex was opened on the 1st July. It is the largest asylum in Europe. The galleries have octagon ends, pierced with windows in accordance with Dr. Conolly's suggestion, in order that the patients when walking in them may escape the dreary aspect of a dead wall.

Testimonial to Dr. Laycock, of York. A handsome silver tea-service has been presented to Dr. Thomas Laycock, of York, by the Associated Licentiates Extra Urbem of the College of Physicians, with the following inscription: "Presented to Thomas Laycock, M.D., Physician to the York Dispensary, Lecturer on the Practice of Medicine in the York Medical School, etc., by his friends, the Associated Licentiates Extra Urbem of the Royal College of Physicians of London, in testimony of their very cordial esteem and regard, and in gratitude for the ability, energy, and zeal with which he has maintained their rights and interests.—Anno Domini, 1851."

APPOINTMENTS.

Hawkins, Cæsar H., Esq., Surgeon to St. George's Hospital, elected, on the 10th July (by the Council), one of the Vice-Presidents of the Royal College of Surgeons of England for the ensuing year.

Jones, Wharton, Esq., F.R.S., was recently elected to fill the triennial appointment of Professor of Physiology to the Royal Institution, vacant by the retirement of Dr. Gull, at the termination of his term of office.

Luke, James, Esq., Surgeon to the London Hospital, elected, on the 10th July (by the Council), one of the Vice-Presidents of the Royal College of Surgeons of England for the ensuing year.

South, John F., Esq., elected, on the 10th July (by the Council), President of the Royal College of Surgeons of England, in the room of Mr. Arnott, whose period of office has expired.

OBITUARY.

Emslie, Alex. L., Esq., Surgeon R.N., at Auchtermuchty, N.B., on the 9th July.

Gilbertson, Frederick, Esq., at his residence, Egham, Surrey, on the 2nd July.

Gibbes, Sir George Smith, M.D., F.R.S., at Sidmouth, on the 23rd June, aged 80. He was for many years Physician Extraordinary to Queen Charlotte; and for a lengthened period practised his profession at Bath.

James, C. H., Esq., late of the 39th Regiment, at Glasgow, on the 11th July.

Jenner, Dr. Henry, third son of the late Rev. H. Jenner, of Burbage, Wilts, and nephew of Dr. Edward Jenner, the discoverer of vaccination, at Stone, near Berkeley, on the 3rd July, of paralysis, aged 80.

Moir, D. M., Esq., Surgeon, of Musselburgh near Edinburgh, at Dumfries, of peritonitis, on the 6th July, aged 53. Mr. Moir was extensively employed in medical, surgical, and obstetric practice among a distinguished class of patients; and by his professional brethren, as well as by the public, he was deservedly held in very high estimation. His medical publications are possessed of much merit; but, we believe, are only two in number: viz., 1. *Outlines of the Ancient History of Medicine.* 12mo. Edinburgh: 1831. 2. *Practical Observations on Malignant Cholera.* 8vo. *Pamphlet.* Edinburgh: 1831. Notwithstanding the great amount and fatiguing nature of his professional duties, Mr. Moir was able, by the exercise of method, to obtain occasional hours of relaxation and leisure, many of which he devoted to literary pursuits. From 1819, to the close of his career, he was a contributor to *Blackwood's Magazine;* and his poetry, published in that miscellany with the signature of "Delta", has long since placed its author in the highest rank of British bards, and given him an European reputation. His *Mansie Waugh, the Dalkeith Tailor*, is a prose novel of singular power, and full of the richest humour; and it would have given Mr. Moir an enduring literary fame, though he had never written a verse. But it is for the sweetness, the deep pathos, and the heart-improving influence of his domestic poetry, that his name will be chiefly remembered and cherished, so long as British literature endures. No one, who is not dead to every generous impulse, can read without emotion his little volume entitled *Domestic Verses:* and we trust that there are few lovers, husbands, wives, or parents, who can peruse them, without being, not only moved to tenderness, but melted to real amendment of heart. Jeffrey well said, that "these poems are so tender and true, so sweet and natural, as to make all lower recommendations indifferent."

Pope, Edward, Esq. (in practice prior to 1815), of 1, Princes-street, Stamford-street, at his residence, on the 17th July, aged 57.

Ripley, John, Esq., Surgeon, at his residence, Whitby, Yorkshire, on the 10th July, aged 54.

Teevan, William, Esq., Surgeon, of Bryanston-square, London, on the 6th July, aged 49. He died at Treplitz in Bohemia, whither he had gone for the restoration of his health.

Wilson, Dr. James A., son of the late John Wilson, Esq., Dumfermline, N.B., at Old Calabar, Africa, in the 22nd year of his age.

BOOKS RECEIVED.

Badeley on Mind, Matter, and Insanity. London: 1851. Beale (Lionel John). Laws of Health. London: 1851. Bushnan (C. Stevenson). Miss Martineau and her Master. London: 1851. Chevers on Diseases of the Heart. Calcutta: 1851. Digitaline: Rapports de MM. Rayer, Souliaran, et Bouillaud. Paris: 1851. Gairdner (William) on Gout. London: 1851. Galloway (Robert). First Steps in Chemistry. London: 1851. Jones (T. W.) on the Sense of Vision. London: 1851. Lardner (Dionysius). Hand-Book of Natural Philosophy and Astronomy. *First Course.* London: 1851. Medical Man's Plea for a Winter Garden in the Crystal Palace. London: 1851. Squires New London Pharmacopœia translated, etc. London: 1851. Symonds (John Addington) on Sleep and Dreams. London and Bristol: 1851.